Georgia Department of Natural Resources
2 Martin Luther King, Jr. Drive, SE, Suite 1154, Atlanta, Georgia 30334
Noel Holcomb, Commissioner
Environmental Protection Division
Carol A. Couch, Ph.D., Director
404/656-2833

December 31, 2007

VIA MAIL COURIER

corrections March 2008

Ms. Carolyn Callihan
Superfund Site Assessment Manager
U.S. Environmental Protection Agency
Waste Management Division
Superfund Site Evaluation Section
61 Forsyth Street, SW
Atlanta, Georgia 30303-3104

SITE: Milliken & Co.
BREAK: 1.8
OTHER: v.1

RE: Milliken & Company – Hillside ~~Mill Site~~ Plant Site
LaGrange, Troup County, Georgia
EPA ID No. GAD 981 275 993
Preliminary Assessment Report

Dear Ms. Callihan:

Enclosed you will find a Preliminary Assessment (PA) report for the above referenced site. Should you have any questions or comments regarding the report, please contact me at (404) 657-8657 or (404) 656-2833.

Sincerely,

Andrew S. Taft

Andrew S. Taft
CERCLA Pre-Remedial Coordinator
Hazardous Waste Management Branch

cc: Bruce Khaleghi, EPD (w/o enclosure)

File: CERCLA Pre-Remedial (FY-2007)
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U.S. EPA REGION IV

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PRELIMINARY ASSESSMENT

MILLIKEN & COMPANY – HILLSIDE PLANT
LAGRANGE, TROUP COUNTY, GEORGIA
GAD 981 275 993

PREPARED FOR:

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION IV
ATLANTA FEDERAL BUILDING
61 FORSYTH STREET, S.W.
ATLANTA, GEORGIA 30303-3415

PREPARED BY:

Andrew S. Taft

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ATLANTA, GEORGIA 30334

~~**DECEMBER 2007**~~ Corrected March 2008

Volume 1 of 2

TABLE OF CONTENTS

TABLE OF CONTENTS (CONTINUED)

LIST OF FIGURES

LIST OF TABLES

NARRATIVE REPORT

PRELIMININARY ASSESSMENT
MILLIKEN & COMPANY – HILLSIDE MILL
LAGRANGE, TROUP COUNTY, GEORGIA
GAD 981 275 993

1.0 INTRODUCTION

Pursuant to Section 105(d) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA), a "Preliminary Assessment Petition" was received by the U.S. Environmental Protection Agency (U.S. EPA) for the Milliken & Company - Hillside Mill located at the intersection of Palm Street and Brownwood Avenue in LaGrange, Georgia 30240 (hereinafter "the site"), (Refs. 1 & 2). The petition is included as Appendix A. Accordingly, the Georgia Department of Natural Resources, Environmental Protection Division (hereinafter "GA EPD") has been tasked to complete a Preliminary Assessment (PA) at the site. The purpose of the PA is to collect information concerning current conditions at the site necessary to assess the immediate or potential threat posed to human health and/or the environment, to determine the need for additional investigation under CERCLA/SARA or other authority and, if appropriate, support site evaluations using the Hazard Ranking System (HRS) for proposal to the National Priorities List (NPL), (Refs. 3 & 4). The scope of the PA included a review of available file documentation, a comprehensive target survey and an on-site reconnaissance. A trip report documenting the July 2007 site reconnaissance is included as Appendix B.

2.0 SITE DESCRIPTION, OPERATIONAL HISTORY AND WASTE CHARACTERISTICS

2.1 Location

The site is located at 1300 Brownwood Avenue, within the city limits of LaGrange, Troup County, Georgia, approximately one and one half (1½) miles southwest of the city square (Refs. 2, 5 & 6), (see Appendix B, Attachment A: Photo 1 of 8). Geographical coordinates of the site reference point are approximately 33° 01' 22" North Latitude and 85° 03' 00" West Longitude, as measured from a point located near the northeast corner of the on-site surface water impoundment [as depicted in the 1:24,000 scale 1964 LaGrange Quadrangle (Photo-revised 1982)], (Refs 5 & 6). The site location, site reference point and approximate site boundaries are depicted in Figure 1.

Based upon available data for the time period extending from 1941 thru 1970, average annual rainfall for the Troup County area was approximately fifty-two (52) inches (Ref. 7). During that same time period, average annual run-off for the area was approximately 18 inches. The site is not located within a most significant groundwater recharge area (Ref. 8). Located within the Piedmont Physiographic Province, the area of the site has a lower groundwater pollution susceptibility rating relative to other areas of Georgia such as the Valley and Ridge Physiographic Province and portions of the Coastal Plain Physiographic Province (Refs. 9 & 10).

The western portion of the site, including most of the on-site surface water impoundment, is located within a one hundred (100) year flood plain associated with a tributary to Blue John Creek (Refs. 5 & 11). A 1982 Flood Insurance Rate Map identifies the tributary as Lee Branch (Ref. 11). A portion of the eastern side of the impoundment has been designated as an area between the limits of a one hundred (100) year flood and a five hundred (500) year flood. The remainder of the site (approximately 65% of the site's total area) has been designated as an area subject to minimal flooding (Refs. 5 & 11).

2.2 Site Description

Milliken & Company currently owns the site (Ref. 5). Headquartered in Spartanburg, South Carolina, the company operates over fifty-five (55) facilities worldwide and claims to be one of the largest privately held textile and chemical manufacturers in the world (Ref. 12).

Surrounded by private residences of the Hillside Community, the site is bounded to the north by Brownwood Avenue, bounded to the east by Lincoln Street, bounded to the south by Fourth Avenue and bounded to the west by the backyards of private residences located on Grant, Palm and Stonewall Streets (Ref. 5 & 13). The western boundary is the only site boundary not delineated by a paved street. The approximate site boundaries are depicted in Figures 1 and 2.

Tax Parcel Numbers 060-2A-018-001 and 060-2A-018-002 comprise the majority of the site (Refs. 5, 13 & 14). At the time of the July 2007 site reconnaissance, a site representative confirmed that Milliken & Company had recently purchased a few private residential lots located on the west side of Palm Street, near the northwest corner of the site (Ref. 5). The homes associated with these private residential lots have since been demolished. For the purposes of this PA, the site is considered to be approximately thirty-four (34) acres in size (Refs. 13 & 14). Tax maps and a property record card for Parcel Number 060-2A-018-001 are included as Appendices C and D respectively.

The site occupies part of a hillside that slopes south towards Fourth Avenue (i.e., the southern boundary of the site), (Refs. 5 & 6). Originating just north of the site, Lee Branch (a tributary to Blue John Creek) flows southeast a short distance before entering the site via culvert underlying Brownwood Avenue (Refs. 5, 6 & 11), (see Appendix B, Attachment A: Photo 8 of 8). Lee Branch is then conveyed south, via underground ancillary equipment, to a second culvert located near the northwest corner of the on-site surface water impoundment (see Appendix B, Attachment A: Photo 2 of 8). From that point, Lee Branch re-surfaces and flows southeast (between the impoundment and the site's western boundary) before exiting at the site's southwest corner (see Appendix B, Attachment A: Photos 3 & 4 of 8).

The surface water impoundment occupies much of the southwest quadrant of the site (Refs. 5 & 6), (see Appendix B, Attachment A: Photos 2 & 4 of 8). According to a 1921 Sanborn Fire Insurance Map, the impoundment has a capacity of six million (6,000,000) gallons (Ref. 15). A drop inlet trickle drainpipe located within the impoundment facilitates maintenance of desired freeboard during times of normal rainfall (Ref. 5). The drainpipe, adjacent to the southwest corner of the impoundment, conveys excess surface water to an outfall pipe that discharges to nearby Lee Branch at the southwest corner of the site (see Appendix B, Attachment A: Photo 4 of 8). The surface water impoundment is depicted in Figures 1 and 2. Sections of the 1921 Sanborn Map are included as Appendix E.

During the July 2007 site reconnaissance, site representatives provided the following information related to the surface water impoundment (Ref. 5):

- Referred to as a "Fire Pond," the impoundment provides water for fire protection.
- Surface water run-off is the source of the impoundment.
- Wastewaters generated on-site are not currently discharged to the impoundment.
- On average, overflow of the impoundment occurs every two (2) to three (3) years.
- The most recent overflow occurred approximately one and one half (1½) years ago.
- The impoundment has not been known to dry up.
- Turtles and snakes (possibly water moccasins) currently inhabit the impoundment.

Based upon site topography, the surface water impoundment was likely constructed as an embankment pond (Refs. 5 & 6). Common in areas of moderate to steep sloping terrain, embankment ponds collect and hold surface water run-off via construction of a dam between two (2) hillsides (Ref. 16). Unless significant silting has occurred, it is expected that the depth of the surface impoundment would generally increase from a north to south direction.

All site-generated run-off enters Lee Branch (Refs. 5 & 6). Most site run-off, including overflows from the surface water impoundment, exits the site at the site's southwest corner via Lee Branch (see Appendix B, Attachment A: Photo 4 of 8). However, some site run-off is conveyed from the site's southeast corner (via underground storm water line) to an outfall that discharges to Lee Branch approximately one hundred (100) feet downstream of the site's southwest corner (Refs. 5 & 17).

An average of one hundred fifty six thousand (156,000) gallons of wastewater is discharged daily to the city sewer system (Ref. 17). Prior to sewer discharge, wastewater generated from on-site operations is pH adjusted (if necessary) within a sixteen thousand eight hundred and seven (16,807) gallon concrete neutralization basin (Refs. 5 & 18), (see Appendix B, Attachment A: Photo 5 of 8). Used in the neutralization process, two (2) two hundred fifty (250) gallon reagent tanks [one (1) containing caustic soda, one (1) containing acetic acid] are located immediately adjacent to the neutralization basin. Continuous pH monitoring occurs within the neutralization basin (Ref. 5). Due to the presence of acids in yarns, it is currently more common to increase the pH of wastewater by the addition of caustic soda than it is to lower the pH by the addition of acetic acid. Point source wastewater pre-treatment occurs at machines that generate wastewater prior to conveyance to the neutralization basin.

Two (2) twelve thousand (12,000) gallon metal aboveground storage tanks are located in the general vicinity of the above described neutralization basin (Refs. 5 & 18), (see Appendix B, Attachment A: Photo 6 of 8). The tanks are used to contain wastewater generated from on-site processes prior to pH adjustment within the neutralization basin (Ref. 5). Wastewater within the tanks can contain Zinc, Formaldehyde, Ammonia and Latex Waste, and under certain

circumstances it is necessary to containerize the wastewater in drums for off-site disposal rather than discharge to the city sewer system.

Four (4) ten thousand (10,000) gallon metal aboveground storage tanks comprising a tank farm are located near the site's northeast corner (Refs. 5 & 18), (see Appendix B, Attachment A: Photo 7 of 8). At the time of the July 2007 site reconnaissance, a site representative indicated that Toluene was stored in one (1) tank with the remaining three (3) tanks being empty (Ref. 5).

Toluene is used to dissolve silicone in the manufacture of automobile air safety bags (Ref. 5). At the time of the July 2007 site reconnaissance, the smell of organic vapor was evident in a room where a toluene/silicone mixture is coated onto fabric. A site representative stated that due to the lowering of the Permissible Exposure Level (PEL) for toluene, modifications were recently made to reduce the amount of toluene vapors available for human exposure inside the room. At the time of the reconnaissance, one (1) individual was observed working in the room. An air permit is associated with a thermal oxidation process that is designed to limit the amount of organic vapors discharged to the atmosphere.

At the time of the July 2007 site reconnaissance, two (2) covered roll-off boxes were observed on the east side of the site near Lincoln Street (Ref. 5). According to a site representative, the plant roof was being re-decked and the roll-off boxes contained wood debris that was possibly painted with lead-based paint. As a conservative measure, the roll-off boxes were lined, covered and labeled as "Hazardous Waste" until analytical results became available that indicated otherwise. For the purposes of this PA, the combined volume of the two (2) roll-off boxes is estimated to be approximately eighty (80) square yards. At that same time/location, the smell of organic vapor was evident in the area, similar to the odor previously described in the room where a toluene/silicone mixture was coated onto fabric (Ref. 5).

At the time of the July 2007 site reconnaissance, a walk around the site perimeter did not reveal any areas of stained soil or stressed vegetation (Ref. 5). A six (6) to eight (8) foot chain-link fence restricts physical access to most areas of the site (other than parking lots), however, the on-site portion of Lee Branch has unlimited access.

Near the southeast corner of the site, on the opposite side of Fourth Avenue (i.e. south side), a brick building was observed at the time of the July 2007 site reconnaissance that looked similar in age to some of the older on-site buildings (Ref. 5). A site representative stated that the building was currently owned by Milliken & Company and was currently vacant, however, a company laboratory had previously operated at that location until a few years ago.

Although not observed during the 2007 site reconnaissance, information obtained from a site representative confirmed the on-site presence of one (1) two hundred thousand (200,000) gallon above ground storage tank (currently not in use) and one (1) one hundred thousand (100,000) gallon above ground storage tank containing Number Six (6) Fuel Oil (Ref. 18).

The site is organizationally subdivided into the Hillside Plant, the Valway Plant and the Hillside Coating Plant (a further subdivision of the Valway Plant), (Ref. 5). In sum, the three (3) contiguous plants comprise the site. Plant specific operations are described as follows:

- Hillside Plant

Operations at the Hillside Plant focus on the manufacture of carpet (Ref. 5). Bales of nylon fibers are received which may be dyed with acid dyes in one (1) of two (2) continuous dye ranges (Ref. 19). The fiber is then spun into yarn and subsequently heated to add "memory" in a process known as heat setting. Finally, the yarn is tufted to a substrate before being transported to another facility for further processing. Currently, approximately five percent (5%) of all yarns are dyed at this location (Ref. 5).

- Valway Plant

The main products manufactured at the Valway Plant include industrial textiles, abrasives, lawn mower grass bags, tire ingredients and automobile safety bags (Ref. 5). Broad woven fabrics are finished on six (6) finishing ranges that may include one or more chemical application pads, scouring boxes and ovens in addition to textile handling and auxiliary equipment (Ref. 20). The chemical application process consists of dip pans and/or coaters. The scouring boxes consist of equipment design to clean or scour textiles with water or an aqueous based solution. Ovens are used for drying and/or heat setting.

- Hillside Coating Plant

At the Hillside Coating Plant, a polymeric coating is compounded and pelletized before being dissolved in solvent (Ref. 21). Curing agents are then added before the polymeric/solvent mixture is applied to fabric in a coating range. After the coating process, powder is applied to keep the fabric from sticking together before final curing in a curing range.

The site is the permittee of five (5) environmental permits as follows:

- Wastewater Discharge Permit No. 101 (Applies to Entire Site)

Issued by the City of LaGrange (in accordance with the provisions of the City of LaGrange Sewer Use Ordinance), this permit authorizes the site to discharge industrial wastewater to the city sewer system (Ref. 22). The discharge permit regulates biochemical oxygen demand, total zinc, total silver, total phenols, total suspended solids, color, oil and grease, total copper, flow and pH in wastewaters discharged to the sewer system.

- Storm Water Discharge General Permit No. GAR000000 (Applies to Entire State of Georgia)

Issued by the Watershed Protection Branch of the GA EPD (in accordance with the provisions of the Georgia Water Quality Control Act and the Georgia Rules for Water Quality Control), this permit authorizes the site to discharge storm water associated with on-site industrial activity to waters of the State of Georgia under the National Pollution Discharge Elimination System (Ref. 23). The site is one (1) of over two thousand (2,000) industrial facilities that are authorized to discharge storm water under this single general permit (Ref. 24).

- Air Permit No. 2281-285-0040-V-02-0 (Applies to Hillside Plant)

Issued by the Air Branch of the GA EPD (in accordance with the provisions of the Georgia Air Quality Act and the Georgia Rules for Air Quality Control), this permit authorizes the Hillside Plant to operate a facility that manufactures yarn, tufted carpet and non-woven material (Ref. 19).

- Air Permit No. 2262-285-0045-V-01-0 (Applies to Valway Plant)

Issued by the Air Branch of the GA EPD (in accordance with the provisions of the Georgia Air Quality Act and the Georgia Rules for Air Quality Control), this permit authorizes the Valway Plant to operate a facility that prepares and finishes fabrics on textile ranges (Ref. 20).

- Air Permit No. 3069-285-0082-V-01-0 (Applies to Hillside Coating Plant)

Issued by the Air Branch of the GA EPD (in accordance with the provisions of the Georgia Air Quality Act and the Georgia Rules for Air Quality Control), permit authorizes the Hillside Coating Plant to operate a fabric coating facility (Ref. 21).

The environmental permits are included as Appendices B (Attachment B) and G thru J.

2.3 Operational History and Waste Characteristics

2.3.1 Operational History

Built in 1915 by textile magnate Fuller E. Callaway (1870 – 1928), the site was the seventh (7^{th}) textile mill built in LaGrange, Georgia (Ref. 25). Three (3) color lithographic postcards dating from 1910 depict different views of the "Hillside Cotton Mills," one (1) of which refers to the surrounding residential area as a "Village" (Ref. 26). The postcards are included as Appendix M. It is unclear whether the lithographic images were derived from photographs, therefore, the postcards may pre-date actual site construction or are improperly dated. Regardless, textile manufacturing has occurred on-site for a time period exceeding ninety (90) years, the majority of which pre-dated the promulgation of any environmental regulation (Refs. 25 & 26).

Depicted on a 1921 Sanborn Fire Insurance Map, the following physical descriptions of the site are considered representative of that earlier time period (Ref. 15), (see Appendix E):

- Residences of The Hillside Community surrounded the site (as currently).
- The site was bounded by Brownwood Avenue, Lincoln Street, Fourth Avenue and the backyards of private residences located on Grant, Palm and Stonewall Streets (as currently except for the recent demolition of some of the houses on Palm Street).
- Most of the current site development existed.
- The surface water impoundment existed.

- The surface water impoundment was labeled as a "Reservoir" of six million (6,000,000) gallon capacity.

- A structure located just north of the surface impoundment was labeled "Dye House."

At the time of the July 2007 site reconnaissance, it was determined that the Dye House depicted in the 1921 Sanborn Map no longer existed (Ref. 5). Asphalt, concrete and part of another building now cover the approximate area where the Dye House was located. A site representative stated that dying more recently occurred within the general vicinity of the former Dye House, however, it occurred at least twelve (12) years ago, within dying kettles, in a different building that was demolished sometime around the year 2000.

A photographic image taken in 1933 depicts a topographic depression in the area where the on-site surface water impoundment is located (Ref. 27). The image is included as Appendix N. At that time, the impoundment may have been temporarily drained. Unauthenticated information obtained from a former site employee suggests that the impoundment has been drained in the past, and that during one such drainage event (unknown date), rusted drums and other debris were discovered at the bottom of the impoundment (Ref. 28).

In and around 1956/1957, a current and past nearby resident recalled that the normally clear running Lee Branch that exits the site under Fourth Avenue frequently became murky and exhibited a strong chemical smell (Ref. 29).

Milliken & Company purchased the site from Callaway Mills in 1968 (Ref. 25).

On April 18, 2002, the site reported to the GA EPD an un-permitted discharge of an estimated sixty (60) gallons of wastewater containing a non-hazardous textile-finishing chemical described as an "acrylic emulsion containing carbon black" (Ref. 30). Due to a breach in a clay pipe underlying the Valway Plant, wastewater normally conveyed to the municipal sewer system was diverted to a nearby underground storm water line that led to an outfall on Lee Branch approximately one hundred (100) feet downstream from Fourth Avenue (Ref. 17). The result was a discoloration of Lee Branch, for approximately one (1) mile downstream of the site, to a point at or near Blue John Creek (Ref. 30). Based upon information obtained from the site, the following four (4) products (*trade name in italics*) were released to Lee Branch during the April 18, 2002 un-permitted discharge (Ref. 17):

- *Millitex Black GBB* – a pigment dispersion product containing Diethylene Glycol, Isopropanol, Ammonium Hydroxide and Carbon Black;

- *Sandolube NVS Liquid* – an aqueous paraffin emulsion product containing Paraffin Wax, Ethoxylated C12-20 Alcohols and Alpha-Octadecyl-Omega-Hydroxy-Poly(Oxy-1,2-Ethanediyl); ethoxylated compound;

- *Triton GR-5M Surfactant* – a surfactant product containing 1,4-Bis(2-Ethylhexly) Sodium, Sulfosuccinate and Isopropanol; and

- *WRL E1137* – an aqueous polymer dispersion product containing Polymer/Solids and Formaldehyde.

Material Safety Data Sheets for the above referenced four (4) products are included in Appendix F.

In accordance with the Georgia Rules for Hazardous Waste Management, results of the three (3) most recent Compliance Evaluation Inspections (CEIs) conducted at the site by the GA EPD Hazardous Waste Management Branch are as follows:

- October 22, 1998 CEI – No violations of the Rules were determined (Ref. 31).

- October 9, 2003 CEI – No violations of the Rules were determined (Ref. 31).

- March 15, 2006 CEI – The following four (4) violations of the Rules were determined (Refs. 31 – 33):

    1. Section 391-3-11-.08(1) of the Rules [equivalent to 40 CFR 262.11] for failure to conduct a hazardous waste determination on broken mercury-containing lamps.

    2. Section 391-3-11-.10(1) of the Rules [equivalent to 40 CFR 265.52(d)] for failure to list the home addresses of emergency coordinators.

    3. Section 391-3-11-.18 of the Rules [equivalent to 40 CFR 273.13(d)(1)] for failure to keep closed two (2) boxes of used mercury-containing lamps when not in use.

    4. Section 391-3-11-.18 of the Rules [equivalent to 40 CFR 273.14(e)] for failure to label one (1) box of used mercury-containing lamps as "Used Lamps."

The GA EPD formally notified the site in writing of the above referenced violations in a Notice of Violation (NOV) dated May 25, 2006 (Ref. 33). In correspondence dated June 21, 2006, the site responded to the NOV by describing the manner in which the violations had been corrected (Ref. 34). In correspondence dated July 12, 2006, the GA EPD formally acknowledged that the site had adequately addressed the violations (Ref. 35). The associated Generator Inspection Report, NOV, Response to NOV and Compliance Status Letter are included as Appendices S thru V.

2.3.2 Waste Characteristics

Contaminants of concern historically associated with the textile industry include spent solvents, spent surfactants, polychlorinated biphenyls (PCBs) from transformers and other machinery, asbestos from spinning machines or historic structures, bleaching products, phosphates from detergents, insecticides, phenols (manmade substances used to make synthetics such as nylon), underground storage tank contents, waste oil, other petroleum products and heavy metals (Ref. 36).

In addition to being found inherently in natural fibers such as cotton, heavy metals have been historically used in textile mills as oxidizers for vat and sulfur dyes, after treatment of direct dyes, metal catalyst for curing resins, finishes, dye stripping agents and various classes of dyes (Ref. 37). Arsenic, Cadmium, Chromium, Copper, Lead, Mercury and Zinc are all found in six (6) common dye classes that include: acid, basic, direct, disperse, fiber reactive and vat dyes.

The textile industry consumes large amounts of water and generates large quantities of wastewater (Ref. 38). Wastewater from printing and dying operations, often rich in color due to dye residues and other chemicals, requires proper treatment before release to the environment. It is widely accepted that untreated wastewater generated by the textile industry can be toxic to both human health and the environment (Refs. 38 & 39).

Each of the three (3) contiguous plants comprising the site has most recently notified as a generator of Resource Conservation and Recovery Act (RCRA) hazardous waste as follows:

- Hillside Plant

Assigned EPA Identification Number GAD 080 090 889, the Hillside Plant notified as a Small Quantity Generator (SQG) of hazardous waste (Ref. 40). A SQG generates from two hundred twenty (220) pounds to two thousand two hundred (2,200) pounds of hazardous waste per calendar month (Ref. 41).

- Valway Plant

Assigned EPA Identification Number GAD 000 821 835, the Valway Plant notified as a Small Quantity Generator (SQG) of hazardous waste (Ref. 40). Types of hazardous waste generated at the Valway Plant include (or have included) EPA Waste Codes D001, F003, F005, U007, U188 and U220. Hazardous substances associated with these waste codes include (but are not limited to) Acrylamide, Methyl Ethyl Ketone, Phenol and Toluene (Ref. 41).

- Hillside Coating Plant

Assigned EPA Identification Number GAD 981 275 993, the Hillside Coating Plant notified as a Large Quantity Generator (LQG) of hazardous waste (Ref. 40). A LQG generates more than two thousand two hundred (2,200) pounds of hazardous waste per calendar month (Ref. 41). Types of hazardous waste generated at the Hillside Coating Plant include (or have included) EPA Waste Codes D001, D008, D009, D035, F003, F005, U057, U116, U154, U220 and U239 (Ref. 40). Hazardous substances associated with these waste codes include (but are not limited to) Cyclohexanone, Ethylene Thiourea, Lead, Mercury, Methanol, Methyl Ethyl Ketone, Toluene and Xylene (Ref. 41).

At the time of the July 2007 site reconnaissance, a site representative estimated that thirty (30) to forty (40) fifty-five (55) gallon drums (or 10,000 to 20,000 pounds) of hazardous waste containing Toluene and Methyl Ethyl Ketone were shipped off-site per calendar month (Ref. 5). Additionally, fifty (50) to one hundred (100) fifty-five (55) gallon drums

(or 40,000+ pounds) of non-hazardous waste were shipped off-site per calendar month. For the purposes of this PA, an average of thirty-five (35) drums of hazardous waste and seventy-five (75) drums of non-hazardous waste are shipped off-site per calendar month.

In calendar year 2005, the Hillside Coating Plant reported that it generated one hundred seventy-three thousand three hundred and ninety-five (173,395) pounds of *RQ Waste Toluene Mixture, 3, UN1294, II* (EPA Waste Codes D001, F003, F005 and U220), all of which was shipped off-site to Clean Harbors Environmental Services located in El Dorado, Arkansas (Refs. 42 & 43).

Also in calendar year 2005, the site reported that a total of fourteen thousand one hundred and ninety-five (14,195) pounds of Toluene emissions were released from the site, four hundred nine (409) pounds from non-point fugitive emissions and thirteen thousand seven hundred eighty-six (13,786) pounds from stack emissions (Ref. 44).

At the time of the July 2007 site reconnaissance, the following wastes were observed at the Valway Plant/Hillside Coating Operations (Ref. 5):

- One (1) 55-gallon drum of latex waste labeled "Non-Hazardous Waste" within an area designated as a Satellite Accumulation Point (SAP). According to a site representative, a total of seven (7) such SAPs were currently in existence.

- One (1) 5-gallon bucket of waste alkaline batteries labeled "Universal Waste."

- Four (4) 55-gallon drums of latex waste labeled "Non-Hazardous Waste" within a designated storage area.

- Ten (10) boxes of waste fluorescent bulbs labeled "Universal Waste" within a designated storage area.

- Five (5) 5-gallon buckets of waste batteries and ballasts labeled "Universal Waste" within a designated storage area.

- One (1) 55-gallon drum of broken tubes labeled "Hazardous Waste" within an area conspicuously designated as a SAP.

- Approximately thirty (30) 55-gallon drums labeled "Hazardous Waste, D001, F003, F005, U220" within a designated storage area.

For the purposes of this PA, and in accordance with Section 3.2.1 of the PA Guidance (Page 42), the following are considered on-site areas where a hazardous substance may have been deposited, stored, disposed or placed (including soil or sediment that may have become contaminated as a result of hazardous substance migration), (Refs. 3, 5, 15 & 18):

- One (1) six million (6,000,000) gallon surface water impoundment;

- One (1) sixteen thousand eight hundred and seven (16,807) gallon concrete neutralization basin;

- One (1) two hundred and fifty (250) gallon aboveground storage tank containing acetic acid;

- One (1) two hundred and fifty (250) gallon aboveground storage tank containing caustic soda;

- Two (2) twelve thousand (12,000) gallon aboveground storage tanks containing Zinc wastewater;

- Four (4) ten thousand (10,000) gallon aboveground storage tanks [one (1) currently containing Toluene];

- Two (2) forty (40) cubic yard roll off boxes containing wood debris possibly contaminated with lead;

- One (1) two hundred thousand (200,000) gallon aboveground storage tank currently not in use (it is unknown whether the tank currently contains any residual waste material);

- One (1) one hundred thousand (100,000) gallon aboveground storage tank currently containing Number Six (6) Fuel Oil;

- Approximately five (5) acres of the site not covered by buildings, paving or the on-site surface water impoundment (i.e., penetrable cover that includes, but is not limited to, landscaped areas, bare soil and Lee Branch sediments).

- Thirty-five (35) fifty-five (55) gallon metal drums containing liquid hazardous waste (average volume shipped off-site per calendar month);

- Seventy-five (75) fifty-five (55) gallon metal drums containing liquid non-hazardous waste (average volume shipped off-site per calendar month); and

For the purposes of this PA, the above referenced areas are considered potential sources of a hazardous substance, and in combination, represent a relatively large waste quantity (Refs. 3, 5, 15 & 18).

Figure 2 depicts the locations of the above referenced potential source areas except the fifty-five (55) gallon metal drums. The drum locations are not depicted in Figure 2 because the specified number of drums represent the average number shipped off-site per calendar month, drums containing waste are distributed within buildings throughout the site and the Global Positioning System (GPS) unit employed during the July 2007 site reconnaissance was not functional inside buildings (Ref. 5).

3.0 GROUNDWATER PATHWAY

3.1 Hydrogeologic Setting

The site is located in the southern section of the Piedmont Physiographic Province, within an area designated as the Greenville Slope District (Ref. 45). Topography in the southern section of the Piedmont is characterized by broad rolling upland or plateau as opposed to the low rolling hills found in the northern section (Ref. 46). The study area is characterized by gently rolling topography dissected by numerous surface water streams, most of which exhibit a dendrite drainage pattern similar to the branching of trees (Refs. 5, 6, 45, 47 & 48).

The Piedmont Physiographic Province is characterized by bedrock overlain with a regolith of varying thickness (Ref. 47). The bedrock of the Piedmont consists of complex sequences of igneous rocks (of Precambrian to Paleozoic age) and metamorphic rocks (of late Precambrian to Permian age), collectively known as crystalline rocks (Refs. 47 & 49). Located above the bedrock, the regolith of the Piedmont consists of semi-consolidated to unconsolidated weathered rock (i.e., saprolite), soil and other surficial deposits (Ref. 47). Depending upon the specific parent rock, the regolith ranges in thickness from a few feet to more than one hundred fifty (150) feet. In some areas, a transition zone occurs between the bedrock and regolith.

Water-bearing units of the Piedmont Physiographic Province include the surficial regolith unit and the deeper bedrock unit (Ref. 47). The regolith unit may consist of soil, alluvium, colluvium and saprolite. Porosity ranging from twenty (20) to thirty (30) percent is typical in the regolith unit (Ref. 50). The deeper bedrock unit may consist of quartzite, slate, gneiss, schist, marble, phyllite, granite and amphoibolite (Ref. 47). The bedrock unit is poorly permeable, with little if any primary porosity [i.e., less than two (2) percent]. Water-bearing zones within the bedrock unit occur along geologic features that produce openings such as lithologic contacts, foliation, joints, fractures, faults, folds, quartz veins and pegmatites. The bedrock unit is unconfined and recharged from groundwater stored in the overlying regolith unit (Ref. 51). For the purposes of this PA, all water-bearing units underlying the site and the study area are considered a single interconnected aquifer.

Domestic water supply is the largest use category of groundwater in the Middle Chattahoochee River basin in Georgia (Ref. 47). Other groundwater uses in this area include public water supply, agricultural and self-supplied industrial and/or commercial. Groundwater is obtained from either shallow, bored wells that are completed in the regolith or deeper, drilled wells that are completed in the bedrock. Wells completed in the shallower regolith are more susceptible to contamination and to water table decline during times of drought. The potential currently exists, especially under current drought conditions, for further development of groundwater resources within the study area.

3.2 Groundwater Targets

The site-specific groundwater Target Distance Limit (TDL) is limited to that area located within four (4) miles of the designated site reference point (Refs. 3 & 4). Only those groundwater targets located within the groundwater TDL are considered for the purposes of this PA. The site reference point and the groundwater TDL are depicted in Figure 3.

3.2.1 Target Population, Nearest Well and Wellhead Protection Area

There are no known municipal wells located within the groundwater TDL (Refs. 5 & 52). Further, no wells associated with other permitted drinking water systems are known to occur within the groundwater TDL (e.g., trailer park system, state park, etc.). Accordingly, there are no designated Wellhead Protection Areas located within the groundwater TDL. The City of LaGrange, Georgia obtains its municipal water supply from surface water bodies (Refs. 53 & 54). The city drinking water system is further discussed in Section 4.2.1.1 of this report (Drinking Water Threat – Intakes).

Based upon information obtained from the 1990 Census of Population and Housing, one thousand five hundred and four (1,504) individuals obtain drinking water from domestic wells located within the groundwater TDL (Ref. 55). Domestic well information was not collected as part of the 2000 Census (Ref. 56). The 1990 Census further indicates that four (4) domestic wells are located between one quarter (¼) and one half (½) mile of the site reference point (Ref. 55). There are no other domestic wells located closer to the site reference point. Actual locations and use status of the closest four (4) domestic wells were not field verified as part of this PA. The number of domestic wells and population on domestic wells (per concentric distance category) are set forth in Table 1.

3.2.2 Resources

As part of this PA, the beneficial use of groundwater for purposes other than drinking water (e.g., irrigation of commercial food crops, watering of commercial livestock, etc.) was not positively confirmed to currently occur within the groundwater TDL. Regardless, Section 3.3.2 of the PA Guidance (Page 75) allows for the conservative assumption that groundwater often has some beneficial use for purposes other than drinking water (Ref. 3).

3.3 Groundwater Conclusions

For the purposes of this PA, a release of a hazardous substance from the site to groundwater is suspected based upon the following:

- The on-site surface water impoundment, in existence since at least 1921, is considered a poorly contained potential source (Refs. 3, 5 & 15).

- The on-site surface water impoundment is a potential source type likely to contribute to groundwater contamination due to the fact that it is located on the ground, it contains liquid and due to its age, the presence of a liner (with a functioning leachate collection and removal system) is not suspected (Refs. 3 & 5).

- In combination, on-site potential source areas represent a relatively large waste quantity (Refs. 3, 5, 15 & 18).

- The average annual rainfall of approximately fifty-two (52) inches for the Troup County area is considered heavy (Refs. 3 & 7).

- The site generates liquid hazardous waste containing hazardous substances that are highly mobile in groundwater (e.g., Methyl Ethyl Ketone and Toluene), (Refs. 3, 5 & 57).

- Textile manufacturing has occurred on-site for a time period exceeding ninety (90) years, the majority of which pre-dated the promulgation of any environmental regulation (Refs. 25 & 26). During that extended time period, it is suspected that inadvertent spills of a hazardous substance have occurred on-site.

For the purposes of this PA, it is not suspected that groundwater targets located within the groundwater TDL have been impacted by a release of a hazardous substance from the site to groundwater based upon the following:

- Although the 1990 Census indicates that four (4) domestic wells are located between one quarter (¼) and one half (½) mile of the site reference point, these nearest wells are not considered relatively nearby [i.e., within one eighth (⅛) of a mile], nor is the population served by these wells considered relatively large (Refs. 3, 5 & 55).

- It is suspected that the four (4) nearest domestic wells are located within an area that has access to the City of LaGrange municipal water system, and that if the wells still exist; they may not be currently used for drinking water purposes (Refs. 5, 53 & 54).

- There are no known wells located nearby [i.e., within one eighth (⅛) of a mile] that have a large drawdown or high production rate that would influence local groundwater flow gradients (Refs. 3, 5 & 52).

In conclusion, the Groundwater Pathway by itself does not warrant further evaluation under the HRS at this time. Despite a relatively large waste quantity and the suspected release of a hazardous substance from the site to groundwater, it is not suspected that any groundwater target located within the groundwater TDL has been impacted by the site (Refs. 3, 5, 7, 15, 18, 25, 26, 52, 53, 54, 55 & 57). However, it is recommended that additional information be collected with regard to domestic wells located within one half (½) mile of the site reference point (e.g., exact locations of the wells, current use status, whether or not there are any reports of foul-tasting or foul-smelling drinking water, etc.).

4.0 SURFACE WATER PATHWAY

4.1 Hydrologic Setting

Located within the Chattahoochee River Basin, the Troup County area received approximately fifty-two (52) inches of average annual rainfall for the time period extending from 1941 thru 1970 (Ref. 7). Pursuant to Section 3.4 of the PA Guidance (and Section 4.0.2 of the HRS), intermittently flowing waters are not considered surface water bodies in areas that receive twenty (20) or more inches of mean annual precipitation (Refs. 3 & 4).

The site-specific hydrologic setting is sub-divided into the Overland Run-Off Route (Overland Segment) and the Surface Water Target Distance Limit (In-Water Segment) as follows:

4.1.1 Overland Run-Off Route (Overland Segment)

The Overland Run-Off Route (ORORR) is the migration route that run-off would follow from a particular on-site source to a perennial surface water body (Refs. 3, 4 & 7). Further, any point at which site run-off enters a perennial surface water body is considered a Point of Probable Entry (PPE).

The site-specific ORORR encompasses sections of three (3) intermittent streams that convey site run-off to the perennial Blue John Creek (Refs. 5, 6, 11, 47 & 58). The streams are identified on a 1982 Flood Insurance Rate Map as Lee Branch, Park Branch and Atlanta Branch (Ref. 11). The ORORR route is further described as follows (Refs. 5, 6, 11 & 17):

- All site run-off enters Lee Branch.
- The furthest downstream point at which site run-off enters Lee Branch is located approximately one hundred (100) feet south or downstream of Fourth Avenue (near the site's southwest corner) at a storm water outfall.
- From the southwest corner of the site, Lee Branch flows generally southeast for approximately one-half (½) mile before converging with Park Branch.
- From the point of confluence of Lee Branch and Park Branch, Park Branch flows generally south for approximately five hundred (500) feet before converging with Atlanta Branch.
- From the point of confluence of Park Branch and Atlanta Branch, Atlanta Branch flows generally south for approximately one-half (½) mile before converging with the perennial Blue John Creek.
- The Point of Probable Entry (PPE) is located at the confluence of Atlanta Branch (intermittent) and Blue John Creek (perennial).
- The total length of the ORORR is approximately one (1) mile.

Despite the perennial designations set forth in the USGS Topographic Map, for the purposes of this PA, flow conditions within the before described ORORR are considered intermittent based upon the following information:

- During the July 2007 site reconnaissance (Ref. 5):
    1. The portion of Lee Branch immediately north of the site was limited to intermittent puddles.
    2. The on-site portion of Lee Branch exhibited a low flow volume.
    3. A site representative stated that approximately nine (9) years ago, the on-site portion of Lee Branch consisted of just a few intermittent puddles.

4. A site representative stated that Lee Branch drains approximately 254 acres of land immediately north of the site (i.e., a relatively limited watershed area).

- From its origin north of the site, the USGS Topographic Map designates Lee Branch as an intermittent stream, until approximately twelve hundred (1200) feet upstream of the site, where the USGS designation changes to perennial (Ref. 6).

- From its origin north of the site, Lee Branch flows approximately one and one-half miles (1½) miles (a relatively short course), before converging with Park Branch (Ref. 6).

- The Lee Branch watershed is relatively limited in area (Refs. 5 & 6).

- At any particular time, the flow volume within Lee Branch would not be expected to vary appreciably (due to its short course and relatively limited watershed area), (Refs. 5 & 6).

- It is not suspected that Lee Branch is fed by a natural spring.

- Despite the area receiving approximately one (1) inch of rain in late October 2007, there was no visible flow in Lee Branch at the site on or near November 8, 2007 (Ref. 59). Only puddles of water existed with areas between puddles remaining damp. An algae-like growth was observed on the surface of some of the puddles.

- The physical conditions of Park Branch and Atlanta Branch are considered similar to those described above for Lee Branch (Refs. 6 & 11).

The ORORand PPE are depicted in Figure 4.

4.1.2 Target Distance Limit (In-Water Segment)

The surface water Target Distance Limit (TDL) is the migration route that site generated run-off would follow from the point it enters a perennial surface water body [i.e., Point of Probable Entry (PPE)], to a point fifteen (15) miles downstream (Refs. 3, 4 & 7).

The site-specific surface water TDL is completely encompassed by perennial sections of Blue John Creek and Long Cane Creek (Refs. 5, 6, 47, 48 & 58). West Point Lake and the Chattahoochee River are not included (Refs. 5, 6 & 48). The surface water TDL is further described as follows (Refs. 5, 6, 47, 48, 58):

- From the before described PPE (see Section 4.1.1 above), Blue John Creek flows generally southwest for approximately three point two (3.2) miles before converging with Long Cane Creek.

- From the point of confluence of Blue John Creek and Long Cane Creek, Long Cane Creek flows generally southwest for approximately eleven point eight (11.8) miles before the surface water TDL terminates at fifteen (15) miles downstream of the PPE.

- From the surface water TDL termination point, Long Cane Creek flows generally south for approximately one (1) mile before converging with the Chattahoochee River below West Point Lake.

Based upon drainage area, average annual flow rates within the TDL were estimated by the United States Geological Survey as follows (Ref. 58):

- From the PPE to its confluence with Long Cane Creek, Blue John Creek transitions from a minimal stream [less than ten (< 10) cubic feet per second] to a small to moderate stream [ten (10) to one hundred (100) cubic feet per second]. Average annual flow rates within the Blue John Creek section of the TDL are estimated to range from approximately nine (9) cubic feet per second to approximately twenty-nine (29) cubic feet per second.

- From its confluence with Blue John Creek to the surface water TDL termination point, Long Cane Creek transitions from a small to moderate stream [ten (10) to one hundred (100) cubic feet per second] to a moderate to large stream [less than one hundred (100) to one thousand (1,000) cubic feet per second]. Average annual flow rates within the Long Cane Creek section of the surface water TDL are estimated to range from approximately seventy-three (73) cubic feet per second to approximately one hundred eight (108) cubic feet per second.

Based upon drainage area, estimated average annual flow rates of Blue John Creek and Long Cane Creek are further set forth in Table 2 (Ref. 58).

Blue John Creek and Long Cane Creek are considered impaired streams because they do not fully support the use of fishing designated by the State of Georgia (Ref. 60). More specifically, Blue John Creek only partially supports fishing due to the presence of fecal coliform bacterial that is potentially caused by urban run-off and/or urban effects. Long Cane Creek does not support fishing due to the presence of fecal coliform bacterial and unspecified impacted biota that is potentially caused by urban run-off and/or urban effects. The "does not support fishing" designation does not imply that fish are not present, or that fish are not taken for human consumption.

The PPE and surface water TDL are depicted in Figures 5 and 6.

4.2 Surface Water Targets

For the purposes of this PA, only surface water targets located within the surface water TDL are considered (Refs. 3 & 4). Surface water targets are sub-divided into the Drinking Water Threat, the Human Food Chain Threat and the Environmental Threat as follows:

4.2.1 Drinking Water Threat

4.2.1.1 Intakes

There is no known drinking water intake located within the surface water TDL (Refs. 52 - 54). Permit No 141-1292-01 (Modified), issued by the GA EPD, authorizes the City of LaGrange to withdraw surface water from West Point Lake for the purpose of a municipal water supply (Ref. 53). Permit No. CS2850001, also issued by the GA EPD, authorizes the City of LaGrange to operate a public drinking water system using surface water as the principal source of supply (Ref. 54). Permitted sources of raw water for the municipal drinking water system are West Point Lake and the Chattahoochee River.

4.2.1.2 Resources

As Part of this PA, the beneficial use of surface water for purposes other than drinking water was not positively confirmed to currently occur within the surface water TDL. However, it is possible that the watering of commercial livestock occurs within rural parts of the TDL. Regardless, Section 3.4.2 of the PA Guidance (Page 102) allows for the conservative assumption that surface water often has some beneficial use for purposes other than drinking water (Ref. 3).

4.2.2 Human Food Chain Threat

Pursuant to Section 391-3-6-.03(14) of the Georgia Rules for Water Quality Control (Specific Water Use Classifications), both Blue John Creek and Long Cane Creek are classified as "Fishing" (Ref. 61). The fishing classification is scientifically determined to be the best utilization of the creeks.

A twenty-seven (27) year employee of the City of LaGrange Office of Water Pollution Control familiar with Long Cane Creek did not believe that the creek currently supported large numbers of fish (Ref. 62). That same employee has never observed anyone fishing on Long Cane Creek. A site representative, who regularly fishes West Point Lake, was not aware of any fishing that occurred within Long Cane Creek (Ref. 5).

As part of this PA, the human consumption of food chain organisms obtained from the surface water TDL was not positively confirmed to currently occur. However, Section 3.4.2 of the PA guidance (Page 91) broadly defines a fishery as an area of a surface water body from which food chain organisms are taken, or could be taken, for human consumption, even if only one (1) food chain organism is taken (Ref. 3). Accordingly, for the purposes of this PA, the entire surface water TDL is considered a fishery.

4.2.3 Environmental Threat

4.2.3.1 Wetlands

Significant qualifying wetland frontage exists within the surface water TDL (Refs. 5, 6 & 63). Three point seven (3.7) frontage miles of combined Palustrine

System Emergent, Forested and Scrub-Shrub Wetlands exist within the Blue John Creek section of the TDL. Fifteen point six (15.6) frontage miles of combined Palustrine System Emergent, Forested and Scrub-Shrub Wetlands exist within the Long Cane Creek section of the TDL. Qualifying wetland frontage located within the surface water TDL is depicted in Figure 6.

4.2.3.2 Aquatic Sensitive Environments

The following three (3) aquatic sensitive environments have been reported to occur in Troup County, Georgia:

- Green Pitcher Plant (*Sarracenia oreophila*)

Designated by the United States Federal Government (and the State of Georgia) as an endangered plant species, the Green Pitcher Plant (also known as the Flytrap) inhabits sandy banks of streams that are periodically inundated by floodwaters (Ref. 64). An actual specimen of the Green Pitcher Plant has never been authenticated in Troup County, Georgia. Accordingly, for the purposes of this PA, Green Pitcher Plant habitat is not considered to exist within the TDL.

- Bluestripe Shiner (*Cyprinella callitaenia*)

Designated by the State of Georgia as a rare fish species (recently downgraded from threatened), the Bluestripe Shiner is endemic to the Apalachicola River drainage basin (which includes the Chattahoochee River basin), (Refs. 65 & 66). The Bluestripe Shiner typically inhabits rivers or large creeks with moderate flow, little or no vegetation and a sandy or rocky substrate (Ref. 66). The Bluestripe Shiner is known to avoid smaller creeks and soft substrates. Lower stream flows with the TDL are not considered optimal for the Bluestripe Shiner. Accordingly, for the purposes of this PA, Bluestripe Shiner habitat is not considered to exist within the TDL.

- Highscale Shiner (*Notropis hypsilepis*)

Designated by the State of Georgia as a rare fish species (recently downgraded from threatened), the Highscale Shiner (*Notropis hypsilepis*) is distributed near and above the fall line in the Chattahoochee and Flint River systems (Refs. 65 & 66). The Highscale Shiner is known to inhabit small streams [three (3) to six (6) meters wide] and is often found near the mouth of such streams as they enter large rivers, and where substrate is sandy (Ref. 66).

The Georgia Department of Natural Resources has confirmed four (4) locations within the Long Cane Creek portion of the TDL where the Highscale Shiner is known to currently exist (Ref. 67). Further, the Highscale Shiner is known to currently exist in Blue John Creek, and is suspected to currently exist within the Blue John Creek portion of the TDL (Ref. 68). For the purposes of this PA, the entire TDL is considered a "particular area, relatively small in size, important to

the maintenance of a unique biotic community" (i.e., Highscale Shiner habitat), (Refs. 3, 4, 67 & 68), (see PA Table 5 or HRS Table 4-23). An artistic representation of the Highscale Shiner (by Joseph R. Tomelleri) is included as Figure 7.

Protected aquatic species reported to occur in Troup County, Georgia are included in Table 3.

4.3 Surface Water Conclusions

For the purposes of this PA, a release of a hazardous substance from the site to surface water is suspected based upon the following:

- Although the ORORis approximately one (1) mile in length, intermittent conditions within the ORORrender the site relatively near to the perennial Blue John Creek [i.e., the Point of Probable Entry (PPE)], (Refs. 5, 6, 11, 58 & 59).

- In combination, on-site potential source areas represent a relatively large waste quantity (Refs. 3, 5, 15 & 18).

- The average annual rainfall of approximately fifty-two (52) inches for the Troup County area is considered heavy (Refs. 3 & 7).

- On average, overflow of the on-site surface water impoundment occurs every two (2) to three (3) years (Ref. 5). The most recent overflow occurred approximately one and one half (1½) years ago. Overflow of the impoundment has the potential to inundate the backyards of nearby residences (see Figure 2).

- The ORORis very well defined by intermittent sections of Lee Branch, Park Branch and Atlanta Branch (Refs. 5, 6, 11 & 59). Moreover, Lee Branch bisects the site (Refs. 5, 6 & 11).

- In and around 1956/1957, a current and past nearby resident recalled that the normally clear running Lee Branch that exits the site under Fourth Avenue frequently became murky and exhibited a strong chemical smell (Ref. 29).

- On April 18, 2002, the site reported an un-permitted discharge of an estimated sixty (60) gallons of wastewater to Lee Branch (Refs. 17 & 30). The result was a discoloration of Lee Branch, for approximately one (1) mile downstream of the site, to a point at or near the Point of Probable Entry (PPE).

- Being located on a hillside, it is suspected that groundwater underlying the site discharges to the ORORis (Refs. 3, 5 & 6). Note that in Section 3.3 of this PA (Groundwater Conclusions), a release of a hazardous substance from the site to groundwater is suspected.

- Textile manufacturing has occurred on-site for a time period exceeding ninety (90) years, the majority of which pre-dated the promulgation of any environmental regulation (Refs. 25 &

26). During that extended time period, it is suspected that inadvertent spills of a hazardous substance have occurred on-site.

For the purposes of this PA, it is suspected that surface water targets located within the Blue John Creek section of the surface water TDL have been impacted by a release of a hazardous substance from the site to surface water based upon the following:

- Surface water targets located within the Blue John Creek section of the surface water TDL are considered relatively near to the site (Refs. 3, 63 & 68). These surface water targets include qualifying wetland frontage, Highscale Shiner habitat and a fishery.

- On April 18, 2002, the site reported an un-permitted discharge of wastewater to Lee Branch that resulted in a discoloration of the stream to a point at or near surface water targets located within the Blue John Creek section of the surface water TDL (Ref. 30), (see Page 7 of this report for further details).

- Due to urban run-off and/or urban effects, Blue John Creek and Long Cane Creek are considered impaired streams that do not fully support the use of fishing designated by the State of Georgia (Ref. 60). The "does not support fishing" designation does not imply that fish are not present, or that fish are not taken for human consumption.

In conclusion, the Drinking Water Threat is not of concern at this time because there is no known drinking water intake located within the surface water TDL (Refs. 3, 5, 6, 11 & 52 – 54).

The Human Food Chain Threat by itself warrants further evaluation under the HRS. Although the human consumption of food chain organisms obtained from the surface water TDL was not positively confirmed as part of this PA, further evaluation is warranted due to a relatively large waste quantity, a suspected release of a hazardous substance from the site to the Blue John Creek section of the surface water TDL and the broad definition of "Fishery" set forth on Page 91 of the PA Guidance (Refs. 3, 5, 7, 15, 18, 25, 26, 30, 60 & 61).

The Environmental Threat by itself warrants further evaluation under the HRS. Further evaluation is warranted due to a relatively large waste quantity, a suspected release of a hazardous substance from the site to the Blue John Creek Section of the surface water TDL and the confirmed presence of three point seven (3.7) miles of qualifying wetland frontage and Highscale Shiner habitat within the Blue John Creek section of the surface water TDL (Refs. 3, 5, 7, 15, 18, 25, 26, 30, 63, 67 & 68).

5.0 SOIL EXPOSURE AND AIR PATHWAYS

5.1 Physical Conditions

The site occupies part of a hillside that slopes south towards Fourth Avenue (i.e., the southern boundary of the site), (Refs. 5 & 6). Surrounded by private residences of the Hillside Community, the site is bounded to the north by Brownwood Avenue, bounded to the east by Lincoln Street, bounded to the south by Fourth Avenue and bounded to the west by the

backyards of private residences located on Grant, Palm and Stonewall Streets (Ref. 5 & 13). The western boundary is the only site boundary not delineated by a street. A six (6) to eight (8) foot chain-link fence restricts physical access to most areas of the site (other than parking lots), however, the on-site portion of Lee Branch has unlimited access (Ref. 5).

Of the site's approximate thirty-four (34) acres, approximately five (5) acres are not covered by buildings, paving or the on-site surface water impoundment (Refs. 5, 13 & 14). For the purposes of this PA, five (5) acres of the site constitute penetrable cover that includes, but is not limited to, landscaped areas, bare soil and Lee Branch sediments (Refs. 3 & 5).

5.2 Soil and Air Targets

5.2.1 Soil Targets

5.2.1.1 Resident Population, On-Site Workers and Nearby Population

Immediately east of the site, there are currently ten (10) single-family residences whose backyards (and associated houses) are located within two hundred (200) feet of on-site penetrable cover (Refs. 5 & 13). Further, the residences are within two hundred (200) feet of sediments within the on-site section of Lee Branch and the surface water impoundment (both considered on-site potential sources of hazardous substances). Of these ten (10) residences, seven (7) are located on Stonewall Street and three (3) are on Palm Street (Ref. 13). Lee Branch physically separates the residences from the adjacent on-site surface water impoundment (Ref. 5). Based upon an average of two point six (2.6) individuals per household, approximately twenty-six (26) individuals reside within two hundred (200) feet of on-site penetrable cover and two (2) potential on-site sources (Refs. 5, 13 & 56). The ten (10) residences are depicted in Figure 2.

Approximately two hundred and thirty (230) individuals work on-site during various shifts (Ref. 69). Based upon information obtained from the 2000 Census of Population and Housing, approximately four thousand five hundred eighty-nine (4,589) individuals reside within one (1) mile of the site (Ref. 56).

5.2.1.2 Terrestrial Sensitive Environments

The following three (3) terrestrial sensitive environments have been reported to occur in Troup County, Georgia:

- Bay Star-Vine (*Schisandra glabra*)

Designated by the State of Georgia as a threatened plant species, the Bay Star-Vine (also known as the Climbing Magnolia and/or Wild Sarsaparilla) can be found twining over understory trees and shrubs in rich forested bottomlands and adjacent lower slopes of certain sections of the Piedmont Plateau in Georgia (Ref. 64).

- Yellow Ladyslipper (*Cypripedium parviflorum*)

Designated by the State of Georgia as a rare plant species, the Yellow Ladyslipper (also known as the Golden Slipper) inhabits rich, moist hardwood coves and forests within the foothills and mountains of Georgia (Ref. 64).

- Bald Eagle (*Haliaeetus leucocephalus*)

Designated by the United States Federal Government (and the State of Georgia) as a threatened bird species, the Bald Eagle is found throughout Georgia, however, known nesting activity is concentrated mostly along the coast and near major rivers, wetlands and reservoirs in the southern and central parts of the state, including, but not limited to, West Point Lake (Ref. 65).

At the time of the July 2007 site reconnaissance, none of the above referenced sensitive environments were observed at the site or within areas of suspected contamination that could be considered at least partially attributable to the site (Refs. 3, 5, 64 & 65). Protected terrestrial species reported to occur in Troup County, Georgia are included in Table 3.

5.2.1.3 Resources

As part of this PA, land use for the purposes of commercial agriculture, commercial silviculture or commercial livestock production (or grazing) was not positively confirmed to currently occur on an area of suspected contamination associated with the site. Regardless, Section 3.5.2 of the PA Guidance (Page 123) allows for the conservative assumption that at least one (1) of the before mentioned land use categories occurs on an area of suspected contamination associated with the site (Ref. 3).

5.2.2 Air Targets

5.2.2.1 Target Population and Nearest Individual

Based upon information obtained from the 2000 Census of Population and Housing, twenty nine thousand one hundred forty-six (29,146) individuals reside within four (4) miles of the site reference point (Refs. 5, 6 & 56). The number of individuals per concentric distance category are set forth in Table 2.

5.2.2.2 Sensitive Environments (Aquatic and Terrestrial)

Approximately ten (10) acres in size, a Palustrine System Forested Wetland is located between one quarter (¼) and one half (½) mile of the site reference point (Refs. 5, 6 & 63). Associated with Lee Branch, the ten (10) acre qualifying wetland is located just northwest of the site. No other qualifying wetlands exist within one half (½) mile of the site reference point that are at least one (1) acre in size.

Protected species (both aquatic and terrestrial) reported to occur in Troup County, Georgia are included in Table 3. For the purposes of this PA, protected species are not suspected to occur within one half (½) mile of the site reference point.

5.2.2.3 Resources

As part of this PA, land use for the purposes of commercial agriculture, commercial silviculture or major recreation was not positively confirmed to currently occur within one-half (½) mile of any on-site potential source. However, the USGS Topographic Map depicts an un-named athletic field immediately northwest of the site (south of Jackson Street) and Callaway Stadium immediately northeast (south of Dallas Street) (Ref. 6). Regardless, Section 3.6.2 of the PA Guidance (Page 140) allows for the conservative assumption that at least one (1) of the before mentioned land use categories occurs within one-half (½) mile of an on-site potential source (Ref. 3).

5.3 Soil Exposure and Air Pathway Conclusions

5.3.1 Soil Exposure Pathway Conclusions

As part of this PA, the presence of a hazardous substance within the top two (2) feet of any on-site penetrable cover (e.g., landscaped areas, bare soil, sediments, etc.) was not positively confirmed. Regardless, Section 3.5.1 of the PA Guidance (page 111) allows for the conservative assumption that hazardous substances are present on a site in areas not covered by an essentially impenetrable cover; or more than two (2) feet of cover material (Ref. 3).

For the purposes of this PA, approximately twenty-six (26) individuals reside within two hundred (200) feet of suspected contamination that is considered at least partially attributable to the site (Refs. 3, 5, 13 & 56). Further, these twenty-six (26) individuals live within two hundred (200) feet of the on-site surface impoundment and stream sediments associated with the on-site section of Lee Branch (both considered potential sources of hazardous substances).

In conclusion, the Soil Exposure Pathway by itself warrants further evaluation under the HRS. Further evaluation is warranted due to a relatively large waste quantity, a suspected release of a hazardous substance to surficial soil (suspected contamination) and the presence of approximately twenty-six (26) individuals who reside within two (200) feet of suspected contamination that is considered to be at least partially attributable to the site (Refs. 3, 5, 13, 15, 18 & 56).

5.3.2 Air Pathway Conclusions

A release of a hazardous substance to the air is fundamentally different from a release of a hazardous substance to other environmental media in that releases to air are transient in nature (Ref. 3). Accordingly, Section 3.6.1 of the PA Guidance (Page 126) specifies that a release to air can only be suspected if it can be detected during a sampling event.

In conclusion, the Air Pathway by itself does not warrant further evaluation under the HRS at this time. Despite a relatively large waste quantity, the smell of an organic vapor on the east side of the site near Lincoln Street at the time of the July 2007 site reconnaissance, the release from the site of fourteen thousand one hundred and ninety-five (14,195) pounds of Toluene emissions in calendar year 2005 and the site being located in an urban residential setting, a release of a hazardous substance from the site to air is not suspected due to the fact that any release is likely to be transient in nature, and that it is considered unlikely that such a transient release could be detected during a scheduled sampling event (Refs. 3, 5, 6, 15, 18 & 44). Further, any Toluene emissions release in accordance with an air permit are not considered as part of this PA. However, it is recommended that additional information be collected with regard to the compliance status of all air permits issued to the site.

6.0 SUMMARY AND CONCLUSIONS

- GROUNDWATER PATHWAY

The Groundwater Pathway by itself does not warrant further evaluation under the HRS at this time. Despite a relatively large waste quantity and the suspected release of a hazardous substance from the site to groundwater, it is not suspected that any groundwater target located within the groundwater TDL has been impacted by the site (Refs. 3, 5, 7, 15, 18, 25, 26, 52, 53, 54, 55 & 57). However, it is recommended that additional information be collected with regard to domestic wells located within one half (½) mile of the site reference point (e.g., exact locations of the wells, current use status, whether or not there are any reports of foul-tasting or foul-smelling drinking water, etc.).

- SURFACE WATER PATHWAY

  - Drinking Water Threat

The Drinking Water Threat is not of concern at this time because there is no known drinking water intake located within the surface water TDL (Refs. 3, 5, 6, 11 & 52 – 54).

  - Human Food Chain Threat

The Human Food Chain Threat by itself warrants further evaluation under the HRS. Although the human consumption of food chain organisms obtained from the surface water TDL was not positively confirmed as part of this PA, further evaluation is warranted due to a relatively large waste quantity, a suspected release of a hazardous substance from the site to the Blue John Creek section of the surface water TDL and the broad definition of "Fishery" set forth on Page 91 of the PA Guidance (Refs. 3, 5, 7, 15, 18, 25, 26, 30, 60 & 61).

  - Environmental Threat

The Environmental Threat by itself warrants further evaluation under the HRS. Further evaluation is warranted due to a relatively large waste quantity, a suspected release of a hazardous substance from

the site to the Blue John Creek Section of the surface water TDL and the confirmed presence of three point seven (3.7) miles of qualifying wetland frontage and Highscale Shiner habitat within the Blue John Creek section of the surface water TDL (Refs. 3, 5, 7, 15, 18, 25, 26, 30, 63, 67 & 68).

- SOIL EXPOSURE PATHWAY

The Soil Exposure Pathway by itself warrants further evaluation under the HRS. Further evaluation is warranted due to a relatively large waste quantity, a suspected release of a hazardous substance to surficial soil (suspected contamination) and the presence of approximately twenty-six (26) individuals who reside within two (200) feet of suspected contamination that is considered to be at least partially attributable to the site (Refs. 3, 5, 13, 15, 18 & 56).

- AIR PATHWAY

The Air Pathway by itself does not warrant further evaluation under the HRS at this time. Despite a relatively large waste quantity, the smell of an organic vapor on the east side of the site near Lincoln Street at the time of the July 2007 site reconnaissance, the release from the site of fourteen thousand one hundred and ninety-five (14,195) pounds of Toluene emissions in calendar year 2005 and the site being located in an urban residential setting, a release of a hazardous substance from the site to air is not suspected due to the fact that any release is likely to be transient in nature, and that it is considered unlikely that such a transient release could be detected during a scheduled sampling event (Refs. 3, 5, 6, 15, 18 & 44). Further, any Toluene emissions release in accordance with an air permit cannot be considered as part of this PA. However, it is recommended that additional information be collected with regard to the compliance status of all air permits issued to the site.

REFERENCES

REFERENCES

1. The Comprehensive Environmental Response, Compensation and Liability Act of 1980 (a.k.a. "Superfund"), (P.L.96-510), as amended by the Superfund Amendments and Reauthorization Act of 1986 (P.L. 99-499).

2. Beckett, Rossell A., Private Citizen, Preliminary Assessment Petition for Hillside Mill Located Near Intersection of Palm Street and Brownwood Avenue, LaGrange, Georgia 30240 (**Appendix A**).

3. *Guidance for Performing Preliminary Assessments Under CERCLA*, United States Environmental Protection Agency, Office of Emergency and Remedial Response, Washington, DC 20460, EPA/540/G-91/013, September 1991.

4. Federal Register, Friday, December 14, 1990, Part II, Environmental Protection Agency, 40 CFR Part 300, Hazardous Ranking System; Final Rule.

5. Taft, Andrew S., Environmental Specialist, Georgia Department of Natural Resources, Environmental Protection Division, Hazardous Waste Management Branch, Facilities Compliance Program, August 10, 2007 Trip Report Documenting July 2007 On-Site Reconnaissance (**Appendix B**).

6. United States Department of the Interior, Geological Survey, 7.5 Minute Series Topographic Maps (1:24,000 Scale): 1964 Canyonville Quadrangle (Georgia), (Photo-revised 1973), 1964 LaGrange Quadrangle (Georgia), (Photo-revised 1982), 1964 Hilyer, Quadrangle (Georgia), 1964 Mountainville, Quadrangle (Georgia), (Photo-revised 1982), (**Figure 3**).

7. Carter, Robert F. and Stiles, Harold R., *Average Annual Rainfall and Run-Off in Georgia, 1941-70*, Georgia Department of Natural Resources, Environmental Protection Division, Hydrologic Atlas 9, Atlanta 1983.

8. Davis, Kenneth R., Donahue, John C., Hutcheson. Robert H. and Waldrop, Deborah L., *Most Significant Ground-Water Recharge Areas of Georgia*, Georgia Department of Natural Resources, Environmental Protection Division, Georgia Geologic Survey, Hydrologic Atlas 18, Atlanta 1989.

9. Trent, Victoria P., *Ground-Water Pollution Susceptibility Map of Georgia*, Georgia Department of Natural Resources, Environmental Protection Division, Georgia Geologic Survey, Hydrologic Atlas 20, Atlanta 1992.

10. Lawton, David E., *Geologic Map of Georgia*, Georgia Department of Natural Resources, Geologic and Water Resources Division, Atlanta 1977.

11. Federal Emergency Management Agency, National Flood Insurance Program, Flood Insurance Rate Map (FIRM), City of LaGrange, Georgia, Troup County, Community Panel Number 130177 0004 B, Map Revised January 15, 1982.

12. Milliken & Company Website (**http://www.milliken.com/**).

13. Troup County Tax Assessor's Office, Tax Maps 60-1B and 60-2A, Scale 1" = 100', Aerial Photography by Tri-State Mapping & Appraisal Service, Inc., Post Office Box 828, Rome, Georgia 30162, Date of Photography: February, 1992 (**Appendix C**).

14. Troup County Tax Assessor's Office, Property Record Card for Parcel Number 060-2A-018-001, Printed July 19, 2007 (**Appendix D**).

15. Sanborn Fire Insurance Maps for Georgia Towns and Cities (1884-1922), 2005 Digital Library of Georgia (**Appendix E**).

16. Ohio Department of Natural Resources, Division of Wildlife, Ohio Pond Management, Pond Construction Website (**http://www.dnr.state.oh.us/wildlife/Home/fishing/pond/construction/tabid/6218/Default.aspx**).

17. Moe, Mark T., Senior Environmental Chemist, Milliken and Company, Valway/Hillside Coating, August 15, 2007 Correspondence to Taft, Andrew S., Environmental Specialist, Georgia Department of Natural Resources, Environmental Protection Division, Hazardous Waste Management Branch, Facilities Compliance Program RE: Response to Request for Follow-Up Information and Associated Correspondence Related to the April 18, 2002 Release of an Acrylic Emulsion Containing Carbon Black (**Appendix F**).

18. Bennett, Kent, Plant Manager, Milliken & Company – Hillside Plant, July 27, 2007 Memorandum to Andrew Taft, Environmental Specialist, Georgia Department of Natural Resources, Environmental Protection Division, Hazardous Waste Management Branch, Facilities Compliance Program RE: Volume Capacity of Certain Tanks Located at the Hillside/Valway Plants (**Appendix B, Attachment C**).

19. Couch, Carol A., Director, Georgia Department of Natural Resources, Environmental Protection Division, Permit Number 2281-285-0040-V-02-0, Part 70 Operating Permit, Issued to Milliken and Company – Hillside Plant, Effective Date: June 1, 2007 (**Appendix G**).

20. Reheis, Harold F., Director, Georgia Department of Natural Resources, Environmental Protection Division, Permit Number 2262-285-0045-V-01-0, Part 70 Operating Permit, Issued to Milliken and Company – Valway Plant, Effected Date: March 26, 2001 (**Appendix H**).

21. Reheis, Harold F., Director, Georgia Department of Natural Resources, Environmental Protection Division, Permit Number 3069-285-0082-V-01-0, Part 70 Operating Permit, Issued to Milliken and Company – Hillside Coating Plant, Effected Date: May 10, 2001 **(Appendix I)**.

22. City of LaGrange, GA, Industrial User, Waste Water Discharge Permit No. 101 Issued to Milliken & Company – Hillside/Valway Plant, Effective April 8, 2006 thru April 7, 2009 **(Appendix B, Attachment B)**.

23. Couch, Carol A., Director, Georgia Department of Natural Resources, Environmental Protection Division, Permit Number GAR000000, General Industrial Storm Water Permit, Authorization to Discharge Under the National Pollutant Discharge Elimination System, Storm Water Discharges Associated with Industrial Activity **(Appendix J)**.

24. Zurow, Drew, Unit Coordinator, Georgia Department of Natural Resources, Environmental Protection Division, Watershed Protection Branch, Non-Point Source Program, November 14, 2007 E-Mail to Taft, Andrew S., Environmental Specialist, Georgia Department of Natural Resources, Environmental Protection Division, Hazardous Waste Management Branch, Facilities Compliance Program RE: Multi-Coverage of General Industrial Storm Permit **(Appendix K)**.

25. Turner, Julie, *Travels Through Troup County: A Guide to its Architecture and History*, Troup County Historical Society, 1996 **(Appendix L)**.

26. Digital Library of Georgia, Troup County Digital Archives Project Photograph Database: 1) Benjamin Franklin Inn, LaGrange, Georgia, 1910, 2) Front View, Hillside Cotton Mills, LaGrange, Georgia, 1910, 3) Hillside and Valway Plants 1930 – 1950, 4) Hillside Cotton Mills and Village, LaGrange, Georgia, 1910 and 5) Rear View of Hillside Cotton Mills, LaGrange, Georgia, 1910 **(Appendix M)**.

27. Digital Library of Georgia, Vanishing Georgia: Citation, Image: trp176, Photograph of Hillside Cotton Mills Plant, LaGrange, Troup County, Georgia, 1933 **(Appendix N)**.

28. Talley, Joe, Former Employee of Milliken & Company - Hillside Mill, November 1, 2007 Telephone Communication with Taft, Andrew S., Environmental Specialist, Georgia Department of Natural Resources, Environmental Protection Division, Hazardous Waste Management Branch, Facilities Compliance Program RE: Cementing of On-Site Floor Drains and Manholes, Temporary Drainage of Impoundment, Debris Located Within the Impoundment and Bad Taste of Fish Caught from Impoundment **(Appendix O)**.

29. Cavender, Alice, Current and Past Resident of LaGrange, Georgia, November 1, 2007 Telephone Communication with Taft, Andrew S., Environmental Specialist, Georgia Department of Natural Resources, Environmental Protection Division, Hazardous Waste Management Branch, Facilities Compliance Program RE: Historic Releases to Creek from the Hillside Mill **(Appendix P)**.

30. Moe, Mark T., Senior Environmental Chemist, Milliken and Company, Valway/Hillside Coating, July 28, 2007 Correspondence to Taft, Andrew S., Environmental Specialist, Georgia Department of Natural Resources, Environmental Protection Division, Hazardous Waste Management Branch, Facilities Compliance Program RE: Information and Associated Correspondence Related to the April 18, 2002 Release of an Acrylic Emulsion Containing Carbon Black (**Appendix Q**).

31. Comprehensive Compliance Monitoring and Enforcement Report for Milliken Hillside Coating (GAD 981 275 993), 1300 Brownwood Avenue, LaGrange, Georgia 30240, Report Run on November 15, 2007 (**Appendix R**).

32. Weglewski, Linda, Environmental Specialist, Georgia Department of Natural Resource, Environmental Protection Division, Hazardous Waste Management Branch, Generator Compliance Program, Generator Inspection Report Documenting Results of March 15, 2006 Compliance Evaluation Inspection (**Appendix S**).

33. Dempsey, Jack N., Unit Coordinator, Georgia Department of Natural Resources, Environmental Protection Division, Hazardous Waste Management Branch, Generator Compliance Program, May 25, 2007 Notice of Violation to Moe, Mark, Senior Environmental Chemist, Milliken Hillside Coating RE: Violations Determined Pursuant to the March 13, 2006 Compliance Evaluation Inspection (**Appendix T**).

34. Moe, Mark T., Senior Environmental Chemist, Valway/Hillside Coating, Milliken & Company, June 21, 2006 Correspondence to Weglewski, Linda, Environmental Specialist, Georgia Department of Natural Resources, Environmental Protection Division, Hazardous Waste Management Branch, Generator Compliance Program RE: Response to May 25, 2007 Notice of Violation (**Appendix U**).

35. Weglewski, Linda, Environmental Specialist, Georgia Department of Natural Resources, Environmental Protection Division, Hazardous Waste Management Branch, Generator Compliance Program, July 12, 2006 Correspondence to Moe, Mark, Senior Environmental Chemist, Milliken Hillside Coating RE: Compliance Status (**Appendix V**).

36. *Environmental Hazards of the Textile Industry*, Environmental Update #24, Published by the Hazardous Substance Research Centers/South and Southwest Outreach Program, June 2006 (**Appendix W**).

37. Leonas, Karen K. and Leonas, Michael L., *Textile Process Wastewater Permits: An Update And Strategies*, University of Georgia, Athens, Published in American Dyestuff Reporter, March 1994 (**Appendix X**).

38. Babu, Ramesh B., Parande, A.K., Raghu, S. and Kumar, T. Prem, *Textile Technology, Cotton Textile Processing: Waste Generation and Effluent Treatment*, Published in The Journal of Cotton Science 11:141-153 (2007), (**Appendix Y**).

39. Environmental Canada, Quebec Region, *Towards Better Management of Textile Mill Effluents*, Fact Sheet, August 2001 (**Appendix Z**).

40. Resource Conservation and Recovery Act (RCRA) Site Detail for Milliken & Co Hillside Plant (GAD080090889), Milliken Valway (GAD000821835) and Milliken Hillside Coating (GAD981275993), Report Run On November 15, 2007 (**Appendix AA**).

41. Rules of the Georgia Department of Natural Resources, Environmental Protection Division, Chapter 391-3-11 (Hazardous Waste Management), Section 391-3-11-.07 (Identification and Listing of Hazardous Waste), Adopted: January 25, 2006, Effective: March 13, 2006.

42. 2005 Hazardous Waste Report for Milliken Hillside Coating (GAD981275993), 1300 Brownwood Avenue, LaGrange, Troup County, Georgia 30240 (**Appendix BB**).

43. Resource Conservation and Recovery Act (RCRA) Info, Site Identification form for Clean Harbors Environmental Services (ARD069748192), 309 American Circle, El Dorado, Arkansas 71730.

44. U.S. Environmental Protection Agency, Toxics Release Inventory (TRI), Envirofacts Report for Milliken & Co. Hillside Plant, 1300 Brownwood Avenue, LaGrange, Troup County, Georgia 30240 (**Appendix CC**).

45. Clark, William Z., Jr. and Zisa, Arnold C., *Physiographic Map of Georgia*, Georgia Department of Natural Resources, Georgia Geologic Survey, Map 4, 1976.

46. Cressler, C.W., Thurmond, C.J. and Hester, W.G., *Groundwater in the Greater Atlanta Region, Georgia*, Georgia Department of Natural Resources, Georgia Geologic Survey, Information Circular 63, 1983.

47. Chapman, Melinda J. and Peck, Michael F., *Ground-Water Resources of the Middle Chattahoochee River Basin in Georgia and Alabama, and Upper Flint River Basin in Georgia: Sub-Area 2 of the Apalachicola-Chattahoochee-Flint and Alabama-Coosa-Tallapoosa River Basins*, U.S. Geologic Survey, Open File Report 96-492, Prepared in Cooperation with the Alabama Department of Economic and Community Affairs (Office of Water Resources), Georgia Department of Natural Resources (Environmental Protection Division), Northwest Florida Water Management District and the U.S. Army Corps of Engineers (Mobile District), Atlanta, Georgia 1997 (**Appendix DD**).

48. United States Department of the Interior, Geological Survey, 30 X 60 Minute Topographic Maps (1:100,000 Scale): 1978 LaGrange Quadrangle (Georgia – Alabama), 1981 Opelika Quadrangle (Alabama – Georgia), (**Figure 5**).

49. Miller, J.A., *Groundwater Atlas of the United States: Segment 6 – Alabama, Florida, Georgia and South Carolina*, U.S. Geological Survey, Hydrologic Investigations Atlas 730-G, 1990.

50. Heath, R.C., *Groundwater Regions of the United States*, U.S. Geological Survey, Water Supply Paper 2242, 1984.

51. Thompson, M.T., Herrick, S.M. and Others, *The Availability and Use of Water in Georgia*, State of Georgia Department of Mines, Mining and Geology, 1956.

52. Wells from USGS GWSI (1999); EPD WRB Non-Municipal Wells (1997); EPD HWMB Field Surveys (2007); Surface Water Intakes from EPD GSB DR-96-27 (2000); Topographic Map: USGS Digital Raster Graphic (2007), **(Figure 3)**.

53. Reheis, Harold F., Director, Georgia Department of Natural Resources, Environmental Protection Division, Permit Number 141-1292-01 (Modified), Permit to Withdraw, Divert or Impound Surface Water, Issued July 15, 1994 to the City of LaGrange **(Appendix EE)**.

54. Reheis, Harold F., Director, Georgia Department of Natural Resources, Environmental Protection Division, Permit Number CS2850001, Permit to Operate a Public Water System, Reissued November 16, 1997 to the City of LaGrange **(Appendix FF)**.

55. Census of Population and Housing, 1990: Summary Tape File 3 on CD-ROM Georgia (Machine-Readable Data Files), Prepared by the Bureau of the Census – Washington: The Bureau (Producer and Distributor), 1992 **(Table 1)**.

56. Census of Population and Housing, 2000: Summary Tape File 3 on CD-ROM Georgia (Machine-Readable Data Files), Prepared by the Bureau of the Census – Washington: The Bureau (Producer and Distributor), 2002 **(Table 2)**.

57. Superfund Chemical Data Matrix, United States Environmental Protection Agency, Office of Emergency and Remedial Response, Washington, DC 20460, March 2006.

58. Landers, Mark N., Hydrologist, P.E., United States Geological Survey, Georgia Water Science Center, December 11, 2007 E-Mail to Taft, Andrew S., Environmental Specialist, Georgia Department of Natural Resources, Environmental Protection Division, Hazardous Waste Management Branch, Facilities Compliance Program RE: Perennial Conditions and Flow Rates Within Blue John Creek and Long Cane Creek **(Table 3 and Appendix GG)**.

59. Bennett, Kent, Plant Manager, Milliken & Company – Hillside Plant, November 8, 2007 Telephone Communication, with Taft, Andrew S., Environmental Specialist, Georgia Department of Natural Resources, Environmental Protection Division, Hazardous Waste Management Branch, Facilities Compliance Program RE: Current Flow Conditions of On-Site Stream and Historic Flow Conditions of Long Cane Creek and Blue John Creek **(Appendix HH)**.

60. Georgia Department of Natural Resources, Environmental Protection Division, Watershed Protection Branch, Georgia 305(b)/303(d) List Documents, 2006 Rivers/Streams Not Fully Supporting Designated Uses (**Appendix II**).

61. Rules of the Georgia Department of Natural Resources, Environmental Protection Division, Chapter 391-3-6 (Water Quality Control), Section 391-3-6-.0 (Water Use Classification and Water Quality Standards), Adopted: January 25, 2006, Effective: March 13, 2006.

62. Westmoreland, Anne, Superintendent, City of LaGrange Office of Water Pollution Control, August 21, 2007 Telephone Communication with Taft, Andrew S., Environmental Specialist, Georgia Department of Natural Resources, Environmental Protection Division, Hazardous Waste Management Branch, Facilities Compliance Program RE: Wastewater Treatment Plant Operations and Fishing in Long Cane Creek (**Appendix JJ**).

63. United States Department of the Interior, Fish and Wildlife Service, 1990 National Wetlands Inventory, Undated Canyonville Quadrangle (Georgia), 1990 LaGrange Quadrangle (Georgia), 1994 Lanett North Quadrangle (Alabama – Georgia), 1994 Lanett South Quadrangle (Alabama – Georgia), Based Upon Aerial Photography Conducted in February of 1981 (**Figure 6**).

64. Patrick, Thomas S., Allison, James R. and Krakow, Gregory A., *Protected Plants of Georgia*, Georgia Department of Natural Resources, Wildlife Resources Division, Georgia Natural Heritage Program, 1995.

65. Ozier, James C., Bohannon, Jeanne L. and Anderson, Jennifer L., *Protected Animals of Georgia*, Georgia Department of Natural Resources, Wildlife Resources Division, Nongame Wildlife – Natural Heritage Section, Nongame – Endangered Wildlife Program, Nongame, 1999.

66. Boschung, Herbert T. and Mayden, Richard L, *Fishes of Alabama*, Smithsonian Books, Washington 2004.

67. Albanese, Brett, Georgia Department of Natural Resources, Wildlife Resources Division, Non-game Conservation Section, November 1, 2007 E-Mail Response to Taft, Andrew S., Georgia Department of Natural Resources, Environmental Protection Division, Hazardous Waste Management Branch, Facilities Compliance Program RE: Highscale Shiner Habitat Within Long Cane Creek and Rare Species Designation (**Appendix KK**).

68. Albanese, Brett, Georgia Department of Natural Resources, Wildlife Resources Division, Non-game Conservation Section, November 12, 2007 E-Mail Response to Taft, Andrew S., Georgia Department of Natural Resources, Environmental Protection Division, Hazardous Waste Management Branch, Facilities Compliance Program RE: Distribution of Highscale Shiner Populations within Long Cane Creek and Blue John Creek (**Appendix LL**).

69. Bennett, Kent, Plant Manager, Milliken & Company – Hillside Plant, July 27, 2007 Telephone Communication, with Taft, Andrew S., Environmental Specialist, Georgia Department of Natural Resources, Environmental Protection Division, Hazardous Waste Management Branch, Facilities Compliance Program RE: Number of On-Site Workers **(Appendix MM)**.

FIGURES

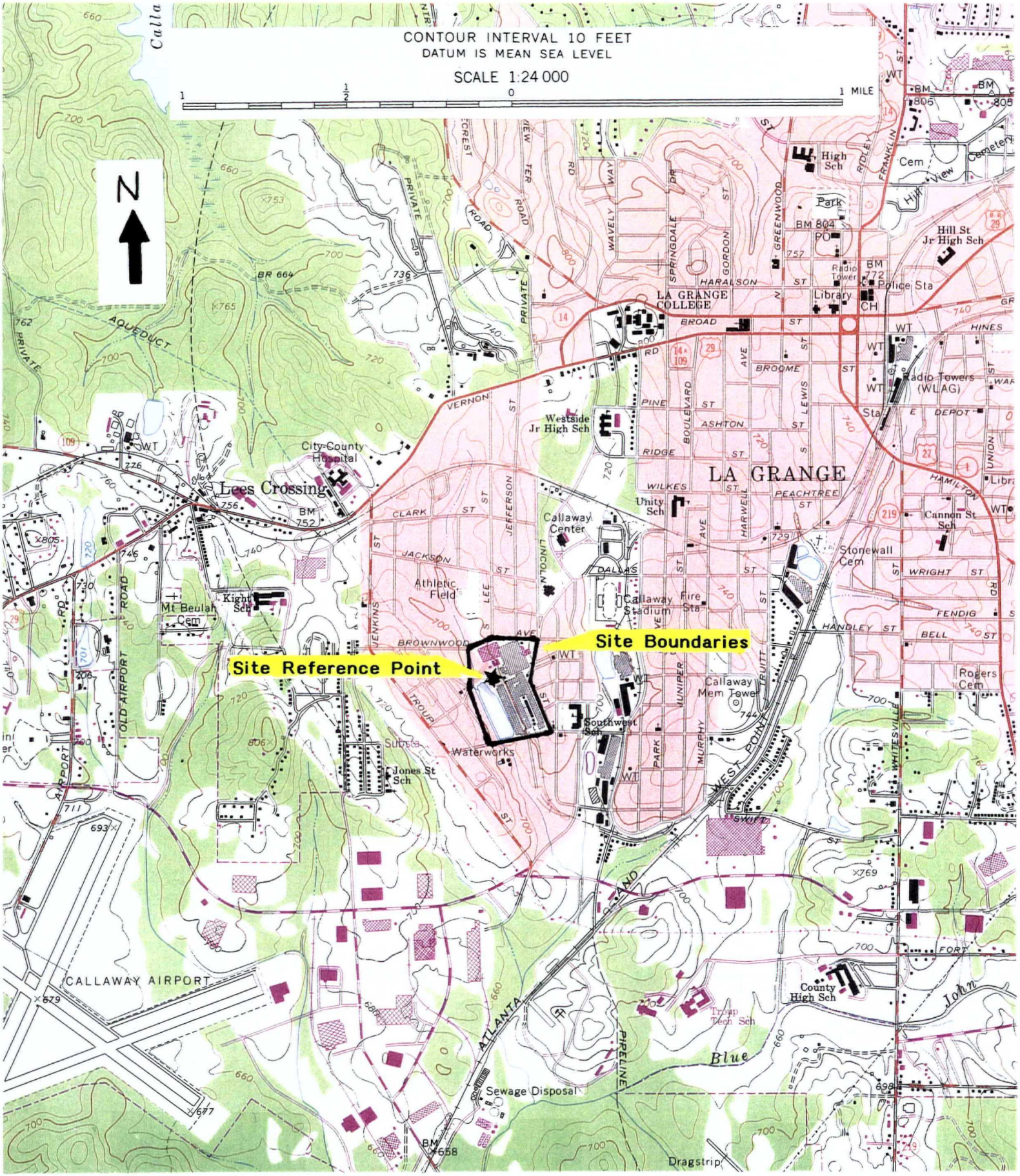
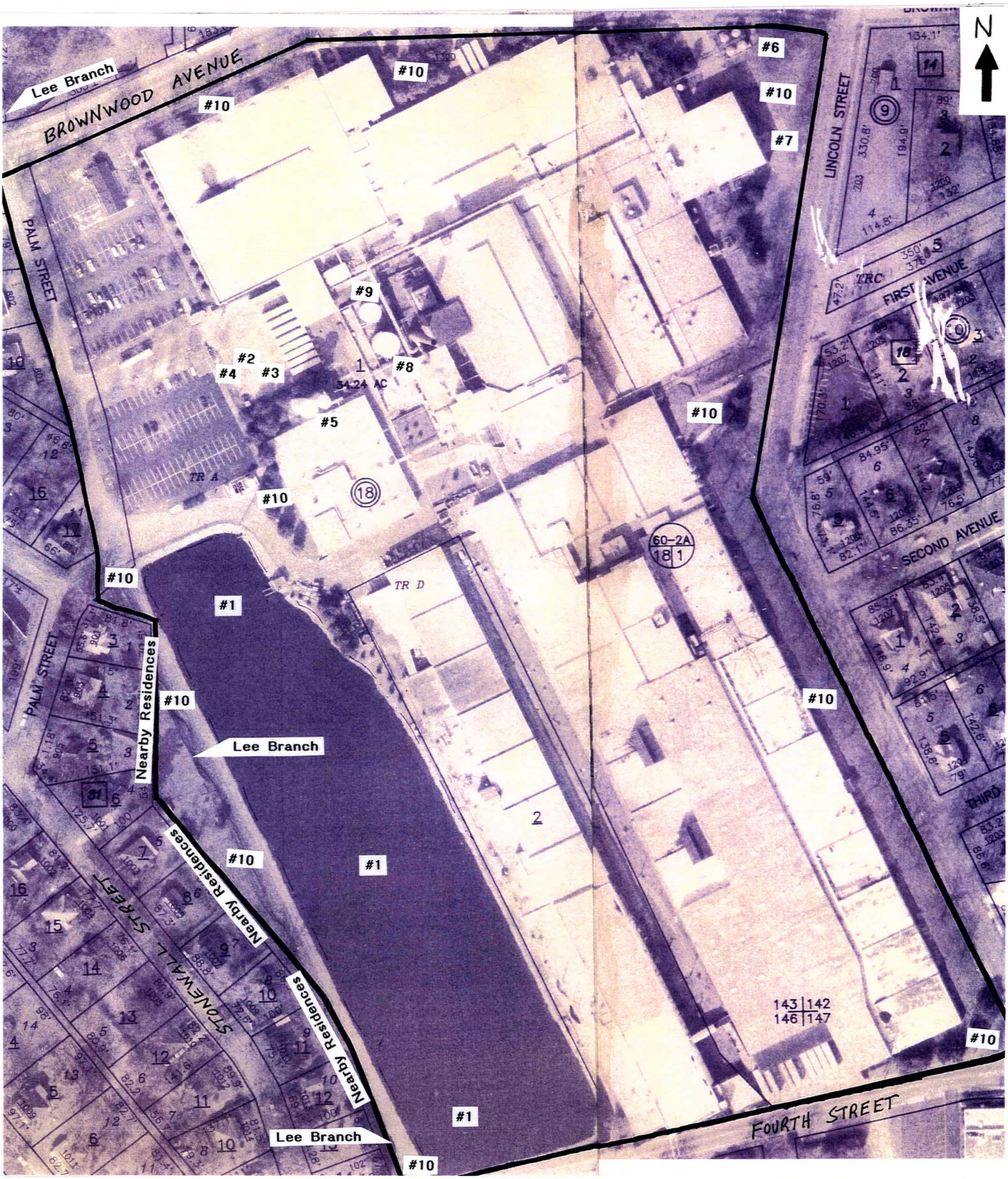


FIGURE 1: Site Location, Site Reference Point & Approximate Site Boundaries (Refs. 5, 6, 13, 15 & 18)



On-Site Potential Source Areas Shown Above

#1. One (1) six million (6,000,000) gallon surface water impoundment;
#2. One (1) sixteen thousand eight hundred and seven (16,807) gallon concrete neutralization basin;
#3. One (1) two hundred and fifty (250) gallon aboveground storage tank containing acetic acid;
#4. One (1) two hundred and fifty (250) gallon aboveground storage tank containing caustic soda;
#5. Two (2) twelve thousand (12,000) gallon aboveground storage tanks containing Zinc wastewater;
#6. Four (4) ten thousand (10,000) gallon aboveground storage tanks [one (1) currently containing Toluene];
#7. Two (2) forty (40) cubic yard roll-off boxes containing wood debris possibly contaminated with lead;
#8. One (1) two hundred thousand (200,000) gallon aboveground storage tank currently not in use;
#9. One (1) one hundred thousand (100,000) gallon aboveground storage tank currently containing Number Six (6) Fuel Oil; and
#10. Approximately five (5) acres of the site not covered by buildings, paving or the on-site surface impoundment.

FIGURE 2: Site Sketch (Refs. 5, 11, 13, 15 & 18)

U.S. EPA REGION IV

SDMS

Unscannable Material Target Sheet

DocID: 1108502 8 Site ID: GAD981275993

Site Name: Milliken & Company

Nature of Material:

Map:	☑	Computer Disks:	☐
Photos:	☐	CD-ROM:	☐
Blueprints:	☐	Oversized Report:	☐
Slides:	☐	Log Book:	☐

Other (describe): Figure 3: Site Reference Point

Amount of material:

* Please contact the appropriate Records Center to view the material *

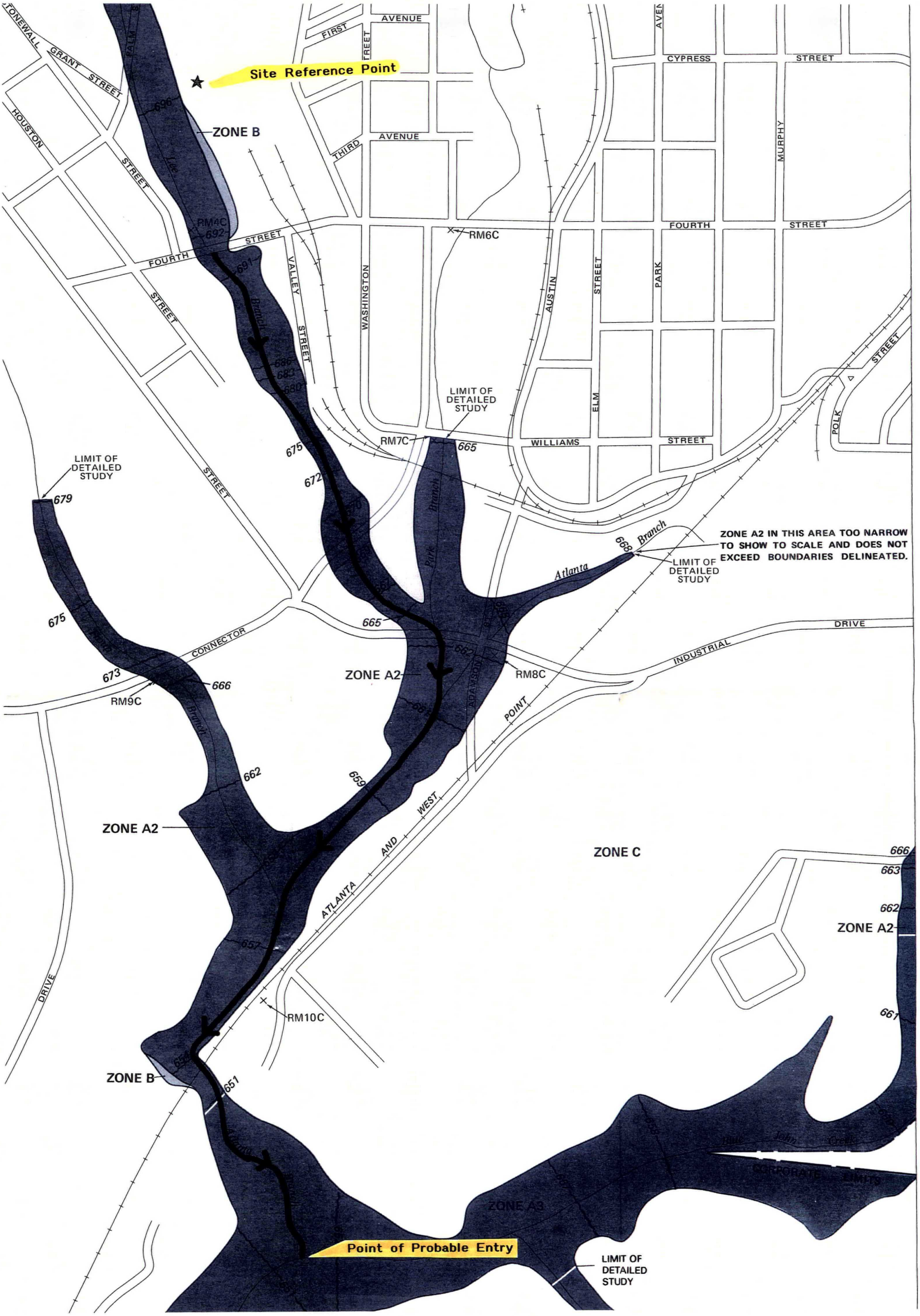


FIGURE 4: Overland Run-Off Route & Point of Probable Entry (Refs. 3, 5, 6, 11, 58 & 59)

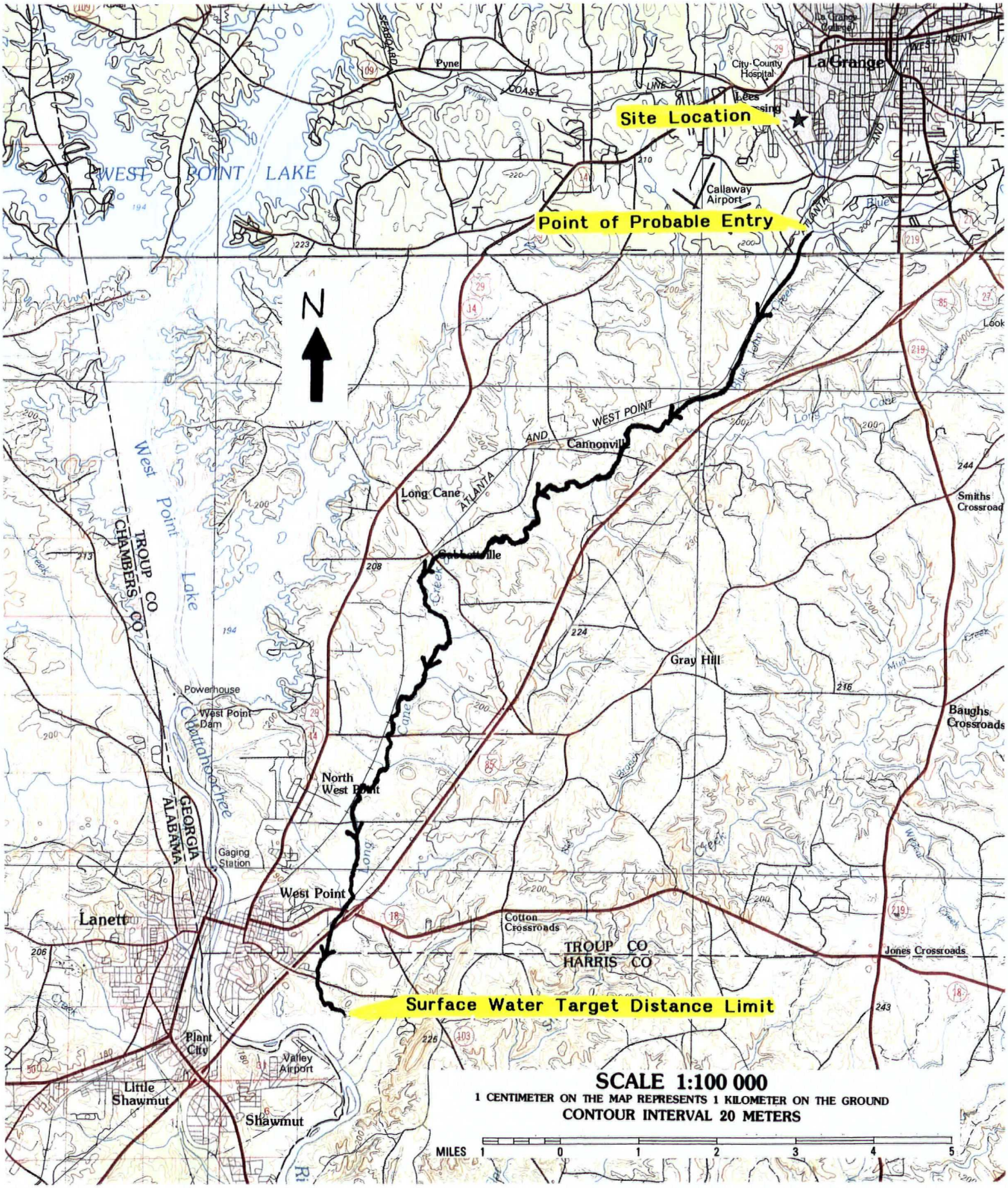


FIGURE 5: Point of Probable Entry & Surface Water Target Distance Limit (Refs. 3, 5, 6, 11, 58 & 59)

U.S. EPA REGION IV

SDMS

Unscannable Material Target Sheet

DocID: 1108502 8 Site ID: GAD981275993

Site Name: Milliken & Company

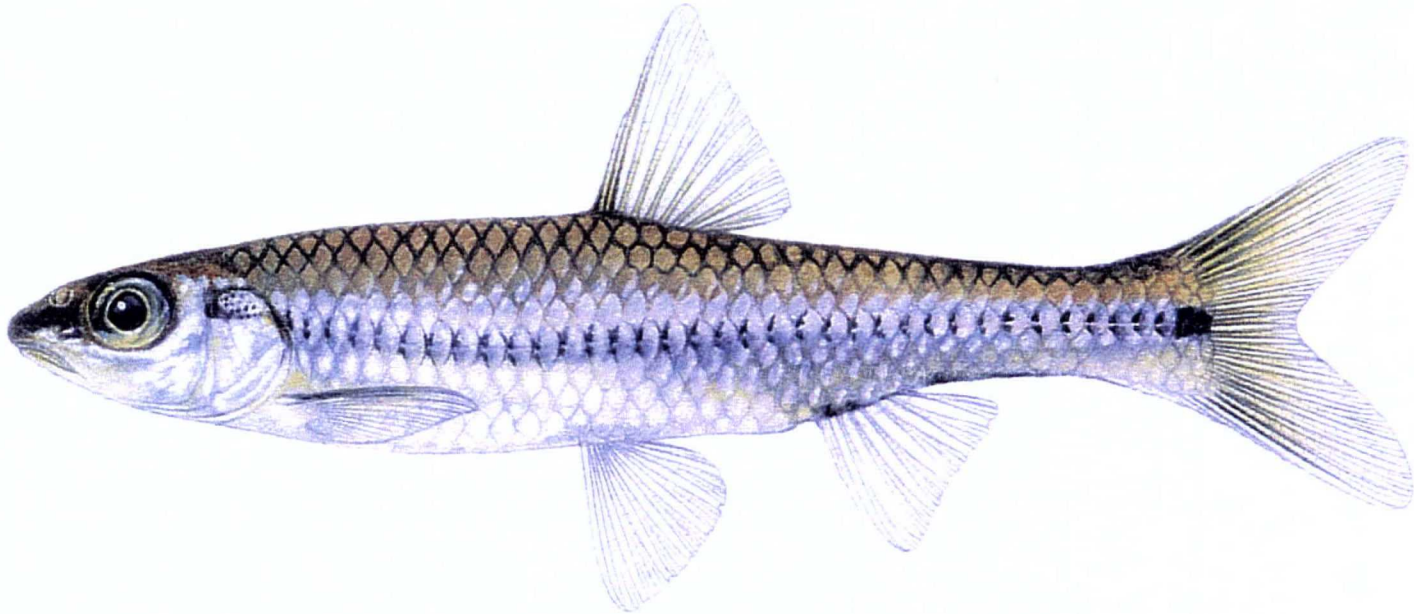
Nature of Material:

Map:	☑	Computer Disks:	☐
Photos:	☐	CD-ROM:	☐
Blueprints:	☐	Oversized Report:	☐
Slides:	☐	Log Book:	☐

Other (describe): Figure 6: Qualifying Wetland Frontage Located Within Surface Water Target Distance Limit.

Amount of material:

* Please contact the appropriate Records Center to view the material *



Not Shown to Scale – Maximum Length Approximately Two (2) Inches – Drawing by Joseph R. Tomelleri

FIGURE 7: Artistic Representation of the Highscale Shiner (*Notropis hypsilepis*), (Ref. 66)

TABLES

Milliken & Company
Hillside Mill
LaGrange, Troup County

LAT 33° 01' 22"N / LONG 85° 03' 00"W

	Population		Households		Households Domestic Well		Households Public Water		Population Domestic Well		Population Public Water	
RAD	Ring	Total	Ring	Total	Ring	Total	Ring	Total	Ring	Total	Ring	Total
0.25	476	476	173	173	0	0	172	172	1	1	475	475
0.50	1027	1503	391	564	4	4	387	559	9	10	1018	1493
1.00	3152	4655	1205	1769	24	28	1181	1741	58	68	3093	4586
2.00	8676	13331	3221	4989	99	127	3122	4863	266	334	8410	12997
3.00	8675	22006	3332	8321	176	302	3156	8019	485	819	8191	21187
4.00	5774	27780	2114	10435	240	542	1874	9893	685	1504	5089	26276

Source: Census of Population and Housing, 1990: Summary Tape File 3 on CD-ROM Georgia [machine-readable data files] / prepared by the Bureau of the Census. –Washington: The Bureau [producer and distributor], 1992.

TABLE 1: Number of Domestic Wells & Population on Domestic Wells per Concentric Distance Category (Ref. 55)

Blue John Creek (Troup County, tributary to Long Cane Creek)

Location	(1) Miles above mouth	(1) Drainage Area (sq-mi)	(1) 7Q10	(2) Average Annual Flow
Ga Hwy 219-285	4.58	3.6		5
WPCP (per 1989 report)	3.56	7.1		9
WPCP (per 1989 report)	3.16	8.5		11
Road 138-285	2.96	9.2		12
at incoming tributary	0.24	14.2		19
Mouth (confluence w/ Long Cane Cr)	0	21.5		29

Long Cane Creek (Troup County, trib to Chattahoochee R.)

Location	(1) Miles above mouth	(1) Drainage Area (sq-mi)	(1) 7Q10	(2) Average Annual Flow
Interstate 85	14.35	32.9	3.1	44
Above Blue John Cr	13.86	33.8		45
Below Blue John Cr	13.86	55.3		73
Road 098-285	8.95	66.4		88
Road 413-285	5.55	73.9		98
Road 069-285	3.92	76.8		102
Ga hwy 18-285	2.51	79.3		105
Interstate 85	2.19	79.9		106
Troup - Harris County Line	1.84	80.5		107
Road 029-145	1.42	81.2		108
Mouth (confluence with Chattahoochee)	0	83.8	9.6	111

(1)-- USGS, Water Resources Investigation 89-4056,
Low-flow profiles of the upper Chattahoochee River and tributaries, 1989,
by: R.F. Carter, E.H. Hopkins, and H.A. Perlman, pgs 142-143

(2)--GaDNR Hydrologic Atlas 9; 1983,
Average annual rainfall and runoff in Georgia 1941-70,
R.F. Carter and H.R. Stiles
Average Runoff in SW Troup County is 18 inches

Table 2: Estimated Average Annual Flow Rates of Blue John Creek & Long Cane Creek (Ref. 58)

COMMON NAME	SCIENTIFIC NAME	STATE LEGAL STATUS	FEDERAL LEGAL STATUS
Bird Species			
Bald Eagle	*Haliaeetus leucocephalus*	Threatened	Threatened
Fish Species			
Bluestripe Shiner	*Cyprinella callitaenia*	Rare	None
Highscale Shiner	*Notropis hypsilepis*	Rare	None
Plant Species			
Bay Star-Vine (a.k.a. Climbing Magnolia and Wild Sarsaparilla)	*Schisandra glabra*	Threatened	None
Yellow Ladyslipper (a.k.a. Golden Slipper)	*Cypripedium parviflorum* (a.k.a. *calceolus*)	Rare	None
Green Pitcher Plant (a.k.a. Flytrap)	*Sarracenia oreophila*	Endangered	Endangered

a.k.a. = also known as

TABLE 3: Protected Species Reported to Occur in Troup County, Georgia (Refs. 64 & 65)

Milliken & Company
Hillside Mill
LaGrange, Troup County

LAT 33° 01' 22"N / LONG 85° 03' 00"W

	Population		Households	
Rad	Ring	Total	Ring	Total
.25	454	454	158	158
.5	1214	1668	409	567
1	2921	4589	1026	1593
2	8171	12760	3203	4796
3	9413	22173	3800	8597
4	6973	29146	2596	11193

Source: Census of Population and Housing, 2000: Summary Tape File 3 on CD-ROM Georgia [machine-readable data files] / prepared by the Bureau of the Census. –Washington: The Bureau [producer and distributor], 2002.

TABLE 4: Number of Individuals per Concentric Distance Category (Ref. 56)

Appendix A

PRELIMINARY ASSESSMENT PETITION

J. I. (Jimmy) Palmer, Jr.
United States Environmental Protection Agency
Region 4
Sam Nunn Atlanta Federal Center
61 Forsyth Street SW
Atlanta, Georgia 30303-3104

Under the authority of CERCLA Section 105 (d), as amended, the petitioner,

Name: Rossell A. Beckett
Address: 505 Autumn Walk, Canton, Georgia 30114
Telephone Number: 678-493-7310
E-mail: rossellbeckett@alltel.net

hereby requests that Region 4 of the United States Environmental Protection Agency conduct a preliminary assessment of the suspected or threatened release of a hazardous substance, pollutant, or contaminant at the following location:

Hillside Mill, LaGrange, Georgia 30240—area all along Palm Street (my dad lived at 800 Palm Street near a polluted stream in the early 1960s) at intersection of Brownwood Avenue and behind the fence near the intersection of Troup Street and Forrest Avenue {my stepbrothers (Nathan, Amos and E.J. Cavender) lived at 1234 Troup Street until the end of the1950s, a house that no longer exists as an Arby's Restaurant was erected on that property plus other property next to the former Cavender house} My stepbrothers played in the stream near their home. I lived on Troup Street briefly as a child and remember the awful smell of the polluted stream at Longely Street (now Forrest Avenue) as I walked to school at the formerly named South West LaGrange School. My younger sister and my stepbrothers' children played in the polluted stream along Palm Street in the early 1960s. See the emailed maps of the mills forwarded by separate emails to Carolyn Callihan. Also, see the maps sent by mail to Carolyn Callihan. The fenced area is located on Maps 60-1C (on left top half at the edge of map at block 8 parcel 13, 24.55 acres) and 60-2D (on right top half at the edge of map part of the same 24.55 acres-connects to other map). At one time the fence surrounded the coal and wood yards. Now the fence goes along Forrest Avenue and behind the houses on Troup, Valley and Washington Streets and possibly 4th Avenue. Notice from the emailed maps of Hillside Mill that at one time there was a coagulation basin, a filter plant, two reservoirs, a watershed and the central coal and wood yards. There is also the research facility nearby. For the Palm Street location, see Map 60-2A (lower right edge of map along Palm Street at Track A of block 18, part of the 34.24 acres).

Petitioner is affected by the release or threatened release because:

My stepbrothers use to play in the polluted, smelly stream near their home and along the area that is now fenced (as indicated in the paragraph above). In the mid 1950s, I lived a few houses up from them on the streamside of Troup Street. The smell was so bad I had to hold my nose to walk by it on my way to school. Two of my stepbrothers (Amos and EJ) died before they turned 60 and an autopsy on Amos confirmed he had leukemia. Further tests indicated its cause was not genetic. Now my remaining stepbrother (Nathan) is fighting for his life with pre-leukemia, myelodysplastic syndrome or MDS. My sister and my stepbrothers' children played in the smelly, polluted stream near Palm Street. I have great fear for my sister's health and my stepbrothers' children's health. My sister has many health issues. There are many others who lived near the Hillside Mill location at 4th Avenue, Troup Street, Brownwood Avenue, and Jefferson Street who have died of cancer. Names have been provided to the Regional Health Officials (Director Dr. Mike Brackett and his epidemiologist, Danielle Thomas) for an investigation. Privacy may be an issue if I provide their names. Privacy is not an issue for health officials.

Type or characteristics of the substances involved:

Hillside Mill had a research facility and dyeing operations that used hazardous chemicals that contained heavy metals. Later, environmental controls were adopted but ***not*** when my relatives were exposed to these dangerous substances. The hazard was compounded by the commingled sewerage system as the substances were released in shallow streams that eventually ran off into Long Cane Creek. In report 96-4101 by the U.S. Geological Survey Water-Resources Investigations, "The discharge location of effluent from the city of LaGrange was moved from Long Cane Creek to the Chattahoochee River in 1993." From the book, History of Troup County, by Clifford L. Smith, Hillside Cotton Mills, "located on land lot 143 of the 5th district" was built in 1913 and chartered in 1914. "This plant, by reason of the installation of a dye house as part of the equipment, manufactures the greatest variety of products of any mill located in the county; in weight from the heaviest to comparatively lightweight goods with many color variations."

Nature and history of any activities that have occurred regarding the release/threatened release:

The main activity that put people at risk, especially children who love to have adventures along streams, was the release of these hazardous chemicals containing heavy metals into the shallow streams near the mills. I still see children playing in these streams. There has been no environmental assessment or remediation of these streams so the hazardous metals and perhaps even some of the chemicals are probably beneath the silt of the streams. I understand nature has a way of cleaning the environment over time but heavy metals are not easily diluted and carried away by water flow. The Regional Health Department environmentalist, Winston Turner, told me that the sewerage system is still in need of repair due to frequent back-ups and broken pipes. Edgewood Avenue also had frequent overflows in the sewerage system and many folks who lived with that stink in their backyards died of cancer. A few weeks ago there was a sewerage problem in the

Ware Street area. My stepbrothers' house had frequent backups from the sewerage system. I wonder if the current sewerage system has backups that contain contaminants, especially after heavy rains, which pose threats to those who live near them.

State and local authorities you have contacted about the release/threatened release and the response, if any:

I have contacted the City of LaGrange, the Georgia Environmental Protection Division (EPD), the Regional Public Health Officials, the Center for Disease Control (CDC), the Georgia Cancer Registry at Emory Hospital, and the Environmental Protection Agency plus others.

The Officials, their email addresses and phone numbers are as follows:

Mayor Jeff Lukken, jefflukken@hotmail.com 706-302-7662
City Manager Tom Hall, thall@lagrange-ga.org 706-883-2010
District Health Director, Dr. Mike Brackett, mlbrackett@gdph.state.ga.us 706-845-4035
Winston Turner (works with Health Department primarily inspecting septic tanks and sewers) waturner@dhr.state.ga.us 706-883-1176

I never heard from the Georgia EPD. I heard from Bob Schmitter (Bob.Schmitter@gtri.gatech.edu) who does assessments and he indicated he could help once tests have been completed. I even sent his web site information to the LaGrange officials. (Carolyn Callihan has copies of all the email correspondence to all officials) The CDC told me I needed to start with local authorities. The Georgia Cancer Registry told me their statistics only began in 1996. Many people who died of cancer who lived in that area died before that date so the data was not meaningful to this situation. At first I thought the officials were very responsive as everyone seemed so concerned. Dr. Brackett told me I could witness the testing by Winston Turner but when Mr. Turner talked to me he indicated he did not have the expertise for testing and he would need the EPD to get involved. Dr. Brackett and two environmentalists (including Mr. Turner) met with me at the site on Forrest Avenue near my stepbrothers' former home and Dr. Brackett indicated testing would be done. He wanted to wait for the state environmentalist assigned to Milliken Mills to return from training and vacation. He even said he wanted me to attend the meeting when the issue was discussed with the mill officials and the assigned state environmentalist. The last communication I received (telephone conversation with Mr. Turner) was that EPD could not do it and the city had no funds to perform the testing. I was told LaGrange was self-certifying and no one really performed testing in LaGrange. Mr. Turner indicated he would be writing the Mayor a letter informing him that no help would be forthcoming from the EPD. I even offered to pay for a test and challenged everyone to pay for a test. (Please see the email correspondence that I sent to Carolyn Callihan.) It is my sincerest hope that you will test these locations and should there a need for environmental remediation, perhaps your actions will be the strong motivator for the City of LaGrange to take a more proactive role in assuring all the many textile mill locations located in LaGrange are environmentally safe for everyone who lives, works or plays in or near all these mills.

Appendix B

Georgia Department of Natural Resources
2 Martin Luther King, Jr. Drive, SE, Suite 1154, Atlanta, Georgia 30334
Noel Holcomb, Commissioner
Environmental Protection Division
Carol A. Couch, Ph.D., Director
404/656-2833

August 10, 2007

TRIP REPORT

SITE NAME & LOCATION:

Milliken & Company – Hillside Mill
1300 Brownwood Avenue
LaGrange, Troupe County, Georgia

TRIP BY:

Andrew S. Taft
Environmental Specialist
GA Environmental Protection Division
Hazardous Waste Management Branch
Facilities Compliance Program

DATE OF TRIP:

July 19, 2007

OFFICIALS CONTACTED:

Kent Bennett
Plant Manager
Milliken & Company – Hillside Plant

Russ Bethea
Maintenance Manager
Milliken & Company – Hillside Plant

Michael Clement
Engineering Services Manager
Milliken & Company – Hillside Plant

Mark Moe
Senior Environmental Chemist
Milliken & Company – Valway Plant

REFERENCE:

Site Reconnaissance
Preliminary Assessment (PA)

PURPOSE:

The purpose of the site reconnaissance was to collect certain information necessary to complete a Preliminary Assessment (PA) in accordance with the document titled: *Guidance for Performing Preliminary Assessments Under CERCLA*, United States Environmental Protection Agency, Office of Emergency and Remedial Response, Washington, DC 20460, EPA/540/G-91/013, September 1991.

DRIVING DIRECTIONS FROM ATLANTA:

- Take Interstate 85 South to Exit 14 at U.S. Highway 27;
- Turn right onto U.S. Highway 27 – proceed approx. ½ mile to South Davis Road;
- Turn left onto South Davis Road – proceed approx. ½ mile to Whitesville Road:
- Turn right onto Whitesville Road – proceed approx. ½ mile to Lukken Industrial Drive;
- Turn left onto Lukken Industrial Drive – proceed approx. 1 mile to Troup Street;
- Turn right onto Troup Street – proceed approx. ¾ mile to Brownwood Avenue; and
- Turn right onto Brownwood Avenue – proceed several blocks to 1300 Brownwood Avenue.

COMMENTS:

The following comments serve to document areas visited, interviews conducted and observations noted during the July 19, 2007 Site Reconnaissance:

1. A sign on the south side of Brownwood Avenue (1300 block) designates the location of plant offices (see Attachment A: Photo 1 of 8).

2. Surrounded by private residences of the Hillside Community, the site is bounded to the north by Brownwood Avenue, bounded to the east by Lincoln Street, bounded to the south by Fourth Avenue and bounded to the west by the backyards of private residences located on Grant, Palm and Stonewall Streets. The western boundary is the only site boundary not delineated by a street.

3. Originating just north of the site, a small un-named stream flows in a southeastern direction near the western boundary of the site (see Attachment A: Photos 2 thru 4 of 8). At the time of the reconnaissance, the stream exhibited a low flow volume. Mr. Bethea stated that approximately nine (9) years ago, the stream consisted of just a few intermittent puddles. According to Mr. Bennett, the stream drains approximately 254 acres of land located north of Brownwood Avenue. Immediately north of Brownwood Avenue (just north of the site), water observed in the stream was limited to intermittent puddles at the time of the reconnaissance (see Attachment A: Photo 8 of 8).

4. What Mr. Bethea referred to as a "Fire Pond" was observed on the western side of the site (see Attachment A: Photo 2 of 8). The elongated pond parallels the small un-named stream discussed in Comment 3 above. Mr. Bethea stated that wastewaters generated from on-site processes are discharged to the city sewer system, not the Fire Pond, and that the pond only receives surface water run-off. Mr. Bethea indicated that the there is always water in the Fire Pond, and to his knowledge, the pond never dries up. During heavy rainfall, the pond drains via ancillary equipment to the un-named stream at an outfall located at the southwest corner of the site (see Attachment A: Photo 4 of 8). Mr. Bethea stated that the Fire Pond overflows every two (2) to three (3) years, however, it has not overflowed in the past one and one half (1½) years. Mr. Bennett stated that numerous turtles occupy the Fire Pond and possibly Water Moccasins. At the time of the reconnaissance, a turtle was observed in the pond.

5. The site is located on a hillside. Site topography slopes south towards the southern boundary of the site. According to Mr. Bethea, most storm water run-off exits the site at the outfall located at the southwestern corner of the site (see Comment 4 above), however, some storm water run-off exits the site at an additional outfall located at the southeastern corner of the site.

6. Mr. Bethea stated that for internal management purposes, the site is subdivided into the Hillside Plant and the Valway Plant. Mr. Moe confirmed that the Hillside Coating Operations are part of the Valway Plant. Together, both plants comprise the site.

7. At the time of the reconnaissance, a copy of a wastewater permit issued by the City of LaGrange was provided upon request (see Attachment B: Wastewater Discharge Permit No. 101). In accordance with the provisions of the City of LaGrange sewer use ordinance, the site was issued a wastewater discharge permit on April 8, 2007. The permit regulates biochemical oxygen demand, total zinc, total silver, total phenols, total suspended solids, color, oil and grease, total copper, flow and pH in wastewaters discharged to the city sewer system.

8. Mr. Bennett stated that prior to discharge to the city sewer system, wastewater generated from on-site processes (from both plants) is pH adjusted within a concrete neutralization basin (see Attachment A: Photo 5 of 8). Mr. Bethea estimated that the square concrete basin's dimensions are approximately 15 feet by 15 feet by 15 feet. At the time of the reconnaissance, two (2) equally sized smaller tanks were observed adjacent to the basin labeled: "Caustic Soda 20%" and "Acetic Acid 80%." Mr. Bennett later confirmed that the volume of the neutralization basin was 16,807 gallons and that the volume of the smaller reagent tanks were 250 gallons each (see Attachment C: July 27, 2007 Memo from Bennett Regarding Tank Volumes).

9. Mr. Bennett confirmed that point source water treatment occurs at machines that generate wastewater prior to the wastewater being conveyed to the neutralization basin. Mr. Bethea stated that, based upon the continuous pH monitoring that occurs within the neutralization basin, it has not been necessary to adjust the pH in the basin in over one and one half (1½) years. Mr. Bethea indicated that partially due to the presence of acids in yarn, it is more common to increase the pH of wastewater in the basin by the addition of caustic soda that it is to lower the pH of wastewater in the basin by the addition of acetic acid.

10. At the time of the reconnaissance, two (2) tanks comprising a tank farm were observed in the general vicinity of the neutralization basin (see Attachment A: Photo 6 of 8). Mr. Moe confirmed that the tanks were used to contain wastewater generated from on-site processes prior to pH adjustment within the neutralization basin. Mr. Moe indicated that wastewater within the tanks can contain zinc, formaldehyde, ammonia and latex waste, and that under certain circumstances, it is necessary to "drum-up" wastewater within the tanks for off-site disposal rather than discharge to the city sewer system. Mr. Bennett later confirmed that the capacity of each of the tanks was 12,000 gallons, for a total of 24,000 gallons (see Attachment C: July 27, 2007 Memo from Bennett Regarding Tank Volumes).

11. On a Sanborn Fire Insurance Map dated January 1920, a "Dye House" is depicted on-site (see Attachment D: January 1920 Sanborn Map for LaGrange, GA). At the time of the reconnaissance, it was determined that the Dye House depicted on the Sanborn Map no longer existed. Asphalt, concrete and part of another building now cover the approximate area where the Dye House was located. Mr. Bennett stated that dying more recently occurred within the general vicinity of the Dye House depicted in the Sanborn Map, however, it occurred at least twelve (12) years ago, within dying kettles, in a different building that was demolished sometime around the year 2000.

12. According to Mr. Bennett, operations at the Hillside Plant focus on the manufacture of carpet. Bales of nylon fiber are received, which may be dyed with acid dyes in one of two continuous dye ranges. The fiber is then spun into yarn and subsequently heated to add "memory," a process known as heatset. Finally, the yarn is tufted to a substrate before being transported to another facility for further processing. Mr. Bennett confirmed that dry cleaning operations have not been conducted on-site since he has worked at this location. Mr. Bennett stated that currently, only 5% of all yarns are dyed at this location.

13. According to Mr. Bethea, the Hillside Plant currently qualifies as a conditionally exempt generator of hazardous waste. Mr. Bethea confirmed that permits associated with the Hillside Plant include an air permit for a single boiler, a wastewater discharge permit and a storm water permit. Mr. Bethea stated that wastewaters associated with dying operations and sanitary wastes are discharged to the city sewer system, used oil is shipped off-site, non-hazardous waste associated with a single parts cleaner is picked-up four times a year and regular trash (including floor sweepings and food waste) is sent to an off-site incinerator.

14. According to Mr. Moe, the main products manufactured at the Valway Plant include industrial textiles, abrasives, lawn mower grass bags, tire ingredients and automobile safety air bags. Broad woven fabrics are finished on six finishing ranges that may include one or more chemical application pads, scouring boxes and ovens in addition to the textile handling and auxiliary equipment. The chemical application process consists of dip pans and/or coaters. The souring boxes consist of equipment designed to clean or scour textiles with water or an aqueous based solution. Ovens are used for drying and/or heat setting.

15. Mr. Moe confirmed that the Valway Plant currently qualifies as a small quantity generator of hazardous waste, however, the Hillside Coating Operations currently qualify as a large quantity generator of hazardous waste. Mr. Moe stated that EPD representative Ms. Linda Weglewski conducted the most recent hazardous waste inspection at the Hillside Coating Operations. Mr. Moe confirmed that permits associated with the Valway Plant and Hillside Coating Operations include air permits, a wastewater discharge permit and a storm water permit. Mr. Bethea stated that the air permits are source specific, however, all on-site plants and operations share the wastewater discharge permit and storm water permit.

16. At the time of the reconnaissance, the following wastes were observed at the Valway Plant/Hillside Coating Operations:

- One (1) 55-gallon drum of latex waste labeled "Non-Hazardous Waste" within an area conspicuously designated as a Satellite Accumulation Point (SAP). Mr. Moe confirmed that a total of seven (7) such SAPs are currently in existence.

- One (1) 5-gallon bucket of waste alkaline batteries labeled "Universal Waste."

- Four (4) 55-gallon drums of latex waste labeled "Non-Hazardous Waste" within a designated storage area.

- Ten (10) boxes of waste fluorescent bulbs labeled "Universal Waste" within a designated storage area.

- Five (5) 5-gallon buckets of waste batteries and ballasts labeled "Universal Waste" within a designated storage area.

- One (1) 55-gallon drum of broken tubes labeled "Hazardous Waste" within an area conspicuously designated as a SAP.

- Approximately thirty (30) 55-gallon drums labeled "Hazardous Waste, D001, F003, F005, U220" within a designated storage area.

17. Mr. Moe estimated that thirty (30) to forty (40) 55-gallon drums (i.e., 10,000 to 20,000 pounds) of hazardous waste containing toluene and Methyl Ethyl Ketone (MEK) were shipped off-site per calendar month. Additionally, Mr. Moe estimated that fifty (50) to one hundred (100) 55-gallon drums (i.e., 40,000+ pounds) of combined non-hazardous waste were shipped off-site per calendar month.

18. Mr. Moe confirmed that toluene is used to dissolve silicone in the manufacture of automobile safety air safety bags. At the time of the reconnaissance, the smell of organic vapor was evident in a room where a toluene/silicone mixture is extruded onto machinery. Mr. Moe stated that due to the lowering of the Permissible Exposure Level (PEL) for toluene, modifications were recently made to reduce the amount of toluene vapors available for human exposure inside the room. At the time of the reconnaissance, one (1) individual was observed working in the room. Mr. Moe confirmed that an air permit is associated with a thermal oxidation process that is designed to limit the amount of organic vapors discharged to the atmosphere.

19. According to Mr. Moe, toluene is stored in one (1) of four (4) above ground storage tanks comprising a tank farm located at the northeast corner of the site (see Attachment A: Photo 7 of 8). At the time of the reconnaissance, Mr. Moe stated that the other three (3) tanks were empty. Mr. Moe estimated that the capacity of each tank to be 10,000 gallons (for a total of 40,000 gallons). Mr. Bennett later confirmed that estimate to be accurate (see Attachment C: July 27, 2007 Memo from Bennett Regarding Tank Volumes).

20. When asked whether any stained soil or stress vegetation existed on-site, both Mr. Bennett and Mr. Moe indicated that they were not aware of any current such condition(s). At the time of the reconnaissance, a walk around the perimeter of the site did not reveal any area of stained soil or stress vegetation.

21. At the time of the reconnaissance, two (2) covered roll-off boxes were observed on the east side of the plant near Lincoln Street. Mr. Moe explained that part of the plant roof was currently being re-decked, and that the roll-offs boxes contained wood debris that was possibly painted with lead-based paint. Mr. Moe suspected that the wood debris was non-hazardous, however, as a conservative measure, the roll-off boxes were, lined, covered and labeled as "Hazardous Waste" until Toxicity Characteristic Leaching Procedure (TCLP) analytical results became available. At the same time/location, the smell of organic vapor was evident in the area, similar to that previously described in Comment 18 above (i.e., toluene/silicone mixture).

22. Near the southeast corner of the site, on the opposite side of Fourth Avenue (i.e. south side), a building was observed that looked similar in age to some of the older on-site buildings. Mr. Bennett stated that the building was currently owned by Milliken & Company and was currently vacant, however, a company laboratory had previously operated at that location until a few years ago.

23. Mr. Bennett, a fisherman himself, was not aware of any fishing that occurred on Long Cane Creek.

RECOMMENDATIONS & FOLLOW-UP REQUIRED:

Use the obtained information documented herein to complete a PA report (in conjunction with additional information). Results of the PA report will be used to determine whether further evaluation of the site under the Hazard Ranking System (HRS) is warranted at this time.

ATTACHMENTS:

A: Eight (8) Photographs
B: Wastewater Discharge Permit No. 101
C: July 27, 2007 Memo from Bennett Regarding Tank Volumes
D: January 1920 Sanborn Map for LaGrange, GA
E: Logbook Documentation

REVEIWED BY: B^C

ATTACHMENT A: Eight (8) Photographs

Site: **Milliken – Hillside Mill**	County: **Troup**	City: **LaGrange**	Photo: **1 of 8**
Photographer: **Andrew Taft**	Date: **July 19, 2007**	Time: **9:30 AM**	Direction Facing: **SW**

Explanation: The depicted sign on the south side of Brownwood Avenue (1300 block) designates the location of plant offices.

Site: **Milliken – Hillside Mill**	County: **Troup**	City: **LaGrange**	Photo: **2 of 8**
Photographer: **Andrew Taft**	Date: **July 19, 2007**	Time: **10:42 AM**	Direction Facing: **E**

Explanation: The depicted small stream (originating just north of the site) flows in a southeastern direction near the western boundary of the site. The depicted culvert is located near the northwest corner of the on-site fire pond (note fire pond in background).

Site: **Milliken – Hillside Mill**	County: **Troup**	City: **LaGrange**	Photo: **3 of 8**
Photographer: **Andrew Taft**	Date: **July 19, 2007**	Time: **10:45 AM**	Direction Facing: **SE**

Explanation: The small stream, flowing southeast near the western boundary of the site, separates the site from adjacent private residences to the west. At the time of the reconnaissance, the stream exhibited a low flow volume. Mr. Bethea stated that approximately nine (9) years ago, the stream consisted of just a few intermittent puddles.

Site: **Milliken – Hillside Mill**	County: **Troup**	City: **LaGrange**	Photo: **4 of 8**
Photographer: **Andrew Taft**	Date: **July 19, 2007**	Time: **10:53 AM**	Direction Facing: **NE**

Explanation: The small stream, flowing southeast near the western boundary of the site, exits at the southwest corner of the site at the depicted culvert underlying Forth Avenue. During heavy rainfall, the fire pond drains to the stream via the depicted outfall pipe (note fire pond in background).

Site: **Milliken – Hillside Mill**	County: **Troup**	City: **LaGrange**	Photo: **5 of 8**
Photographer: **Andrew Taft**	Date: **July 19, 2007**	Time: **11:09 AM**	Direction Facing: **SW**

Explanation: Prior to discharge to the city sewer system, wastewater generated from on-site processes is pH adjusted within the depicted 16,807-gallon concrete neutralization basin. Note the two (2) 250-gallon tanks containing caustic soda and acetic acid reagents for pH adjustment.

Site: **Milliken – Hillside Mill**	County: **Troup**	City: **LaGrange**	Photo: **6 of 8**
Photographer: **Andrew Taft**	Date: **July 19, 2007**	Time: **11:43 AM**	Direction Facing: **SW**

Explanation: The depicted two (2) 12,000 gallon tanks are used to contain wastewater generated from on-site processes prior to pH adjustment within the neutralization basin. Mr. Moe stated that under certain circumstances, it is necessary to "drum-up" wastewater within the tanks for off-site disposal rather than discharge to the city sewer system.

Site: **Milliken – Hillside Mill**	County: **Troup**	City: **LaGrange**	Photo: **7 of 8**
Photographer: **Andrew Taft**	Date: **July 19, 2007**	Time: **12:45 PM**	Direction Facing: **SE**

Explanation: At the northeast corner of the site, toluene is stored in one (1) of four (4) 10,000-gallon tanks. At the time of the reconnaissance, Mr. Moe stated that the other three (3) tanks were empty. Toluene product is used to dissolve silicon in the on-site manufacturing of automobile safety air bags.

Site: **Milliken – Hillside Mill**	County: **Troup**	City: **LaGrange**	Photo: **8 of 8**
Photographer: **Andrew Taft**	Date: **July 19, 2007**	Time: **1:14 PM**	Direction Facing: **S**

Explanation: The depicted culvert underlies Brownwood Avenue at the northwest corner of the site. According to Mr. Bennett, the depicted small stream drains approximately 254 acres of land north of Brownwood Avenue before flowing southeast near the western boundary of the site. At this location, water was observed in intermittent puddles.

ATTACHMENT B: Wastewater Discharge Permit No. 101

LaGRANGE georgia

SMART MOVE℠

April 4, 2006

Mr. Mark Moe
Sr. Environmental Engineer
Milliken & Co. – Valway Plant
1300 Fourth Avenue
LaGrange, GA 30240

RE: Wastewater Discharge Permit No. 101 - Renewal

Dear Mr. Moe:

Wastewater Discharge Permit No. 101 for the combined discharge from the Hillside/Valway Complex is enclosed. As you know, there are several changes to the effluent monitoring requirements found in Part I. The permit will be effective for a three-year period.

The permit renewal fee has been received and credited to your account. Please let me know if you have questions or need any information. I may be reached at 883-2150 or by e-mail at annew@lagrange-ga.org.

Sincerely,

Anne Westmoreland

Anne Westmoreland
Water Pollution Control Superintendent

CITY OF LAGRANGE
OFFICE OF WATER POLLUTION CONTROL
P. O. Box 430 • LaGrange, Georgia 30241 • (706) 883-2150 • Fax (706) 883-2152

PERMIT NO. 101

CITY OF LAGRANGE, GA
INDUSTRIAL USER
WASTEWATER DISCHARGE PERMIT

In accordance with the provisions of the City of LaGrange sewer use ordinance (City Code, Chapter 20-15, Article II)

Milliken & Company – Hillside/Valway Plant

is authorized to discharge industrial wastewater into the City's sewer lines at

1300 Brownwood Avenue
LaGrange, GA 30240

in accordance with the conditions set forth in this permit. Compliance with this permit does not relieve the permittee of its obligation to comply with any or all applicable pretreatment regulations, standards or requirements under local, State, or Federal laws, including any that may become effective during the term of this permit.

Noncompliance with any term or condition of this permit shall constitute a violation of the City of LaGrange's sewer use ordinance.

This permit shall become effective on April 8, 2006

And shall expire at midnight on April 7, 2009

Anne S. Westmoreland

Water Pollution Control Superintendent

City of LaGrange, Georgia

PART I

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

The permittee shall comply with the United States Environmental Protection Agency (EPA) General Pretreatment Regulations (40 CFR Part 403, as amended). In addition, the permittee shall comply with the City of LaGrange, Georgia sewer use ordinance, (City Code, Chapter 20-15, Article II).

The Discharge(s) from the industrial outfall(s) shall be monitored by the permittee as specified below.

Parameter	Discharge Limitations Mg/l		Monitoring Requirements		
	Daily Maximum	Monthly Average	Frequency	Sample Type	Location No.
Biochemical Oxygen Demand			1/ quarter	Composite	1
Total Zinc	1.77		1/ quarter	Composite	1
Total Silver			1/ quarter	Composite	1
Total Phenols			1/ quarter	Composite	1
Total Suspended Solids			1/ 6 months	Composite	1
Color (ADMI adj. pH 7.6)			1/ 6 months	Composite	1
Oil & Grease			1/ 6 months	Grab	1
Total Copper			1/6 months	Composite	1
Flow			continuously		1

The pH shall not be less than 5.0 standard units nor greater than 12.0 standard units and shall be monitored: Continuously at location 1.

Samples shall be collected at the following location(s):

Location No. 1 – Effluent of neutralization basin at Hillside Plant

Discharges from outfalls not sampled shall be of domestic or non-process wastewater only and shall comply with Section 20-15-31 of the City of LaGrange Code.

*** Parameters sampled once/ 6 months should be reported on the June and December self-monitoring reports.**

PART II
MONITORING AND REPORTING

A. Representative Sampling
1. Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge.
2. Composite samples should be flow proportional where possible. Time composite during production hours or a minimum of 4 grab samples combined may be substituted with approval by the City.
3. Any change in sampling location from that specified in this permit, must be approved by the Superintendent.

B. Automatic Resampling
If the results of the permittee's wastewater analysis indicates that a violation of this permit has occurred, the permittee must:
1. Inform the Superintendent of the violation within 24 hours; and
2. Repeat the sampling and pollutant analysis and submit, in writing, the results of this second analysis within 30 days of the first violation.

C. Test Procedures
All handling and preservation of collected samples and laboratory analysis of samples shall be performed in accordance with 40 CFR Part 136 and amendments thereto or otherwise approved by EPA.

D. Recording
For each measurement of sample taken pursuant to the requirements of this permit, the permittee shall record the following information:
1. The date, exact place, method, and time of sampling and the names of the persons taking the samples;
2. The date analyses were performed;
3. Who performed the analyses;
4. The analytical techniques/methods used; and
5. The results of such analyses.

E. Reporting
1. Monitoring results obtained during the previous 3 months shall be summarized for each month and reported on a Self Monitoring Form post marked no later than the 14th day of the month following the completed reporting period. The first report is due on June 14, 2006. A single signed copy of this, and all other reports required herein, shall be submitted to the Superintendent by mailing to:

   Water Pollution Control Superintendent
   City of LaGrange
   P.O. Box 430
   LaGrange, Georgia 30241

2. The Industrial User shall notify the Superintendent or Long Cane Plant personnel (883-2150) immediately of any accidental or slug loading in such volume or strength as to cause interference in the sewer system or at the plant. Formal written notification discussing circumstances and remedies shall be submitted to the Superintendent within 5 days of the occurrence.

3. The permittee shall notify the Superintendent prior to the introduction of new wastewater or pollutants or any substantial change in the volume or characteristics of the wastewater being introduced into the POTW. Formal written notification shall follow within 30 days of such introduction.

4. Any upset experienced by the Industrial User of its treatment process that places it in a temporary state of noncompliance with wastewater discharge limitations contained in this permit or other limitations specified in the City's Ordinance shall be reported to the Superintendent within 24 hours of first awareness of the commencement of the upset. A detailed report shall be filed within 5 days.

F. Additional Monitoring by Permittee

If the permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit, using approved analytical methods as specified above, the results of such monitoring shall be included in the calculation and reporting of the values required in the Self Monitoring Form.

G. Record Retention

The permittee is required to retain for a minimum of three (3) years any records of monitoring activities and results and shall make such records available for inspection and copying by the City, the Georgia EPD, or the U.S. EPA. The period of retention shall be extended during the course of any unresolved litigation regarding the permittee or when requested by the Superintendent, EPD, or the EPA.

H. Definition

1. Monthly average: The arithmetic mean of all the samples collected in a one-month period.
2. Flow, (gpd): The flow is determined as the arithmetic mean of the total daily flows recorded during the calendar month.
3. Arithmetic Mean: The arithmetic mean of any set of values is the summation of the individual values divided by the number of individual values.
4. Flow Proportional Composite Samples: A sample collected over a defined period of time at a rate proportional to the flow.
5. Time Composite Samples: A sample collected over a defined period of time at a rate proportional to time.
6. Grab Sample: An instantaneous sample of the wastewater collected at the period(s) most representative of the total discharge.

PART III
COMPLIANCE SCHEDULE

The permittee shall achieve compliance with the effluent limitations specified for discharges in accordance with the following schedule:

A. Not later than fourteen (14) days following each date in the subsequent schedule and the final date for compliance, the permittee shall submit a progress report to the Superintendent including, as a minimum, whether or not it complied with the increment of progress, the reason for the delay, and steps being taken by the permittee to return the activities to the schedule established. In no event shall more than nine (9) months elapse between such progress reports to the City.

B. Compliance Schedule:

PART IV
GENERAL CONDITIONS

A. All discharges authorized herein shall be consistent with the terms and condition of this permit. The discharge of any pollutant identified in this permit more frequently than or at a level in excess of that authorized shall constitute a violation of the permit. Any anticipated facilities expansions, production increases, or process modifications which will result in new, different, or increased discharges of pollutants must be reported by submission of a new Discharge Permit application or, if such change will not violate the effluent limitations specified in this permit, by notice to the Superintendent of such changes. Following such notice, the permit may be modified to specify and limit any pollutants not previously limited.

B. The permittee shall at all times maintain in good working order and operate as efficiently as possible all treatment or control facilities or systems installed or used by the permittee to achieve compliance with the terms and conditions of this permit.

C. The permittee shall take all reasonable steps to minimize any adverse impact to the City of LaGrange's sewer system and waste treatment facilities resulting from noncompliance with any effluent limitations specified in this permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.

D. The permittee shall allow the Superintendent or authorized representatives upon presentation of his credentials:
   1. The right of entry to, upon, or through any premises in which an effluent source is located or in which any records required to be maintained under the terms and conditions of this permit are located.
   2. Access to and copy records, inspect any monitoring equipment or methods required under the terms and conditions of this permit, and sample any effluents.

E. Wastewater discharge standards are issued to a specific user for a specific operation. A permit shall not be assigned or transferred or sold to a new owner, new user or for different premises, unless approved by the Superintendent.

F. The permittee shall not increase the use of potable or process water or, in any way, attempt to dilute an effluent as a partial or complete substitute for adequate treatment to achieve compliance with the limitations contained in this permit.

G. The permittee must apply in writing for a renewal permit within the period of time not more than ninety (90) days and not less than sixty (60) days prior to expiration of the current permit.

H. The permittee shall not discharge any of the prohibited pollutants identified in Section 20-15-31 of the City's sewer use ordinance.

I. This permit may be modified, suspended, or revoked in whole or part for cause including but not limited to the following:
   1. To incorporate any new or revised Federal, State, or local pretreatment standards or requirements.
   2. Material or substantial alterations or additions to the discharger's operation processes, or discharge volume or character.
   3. Changes in the City's NPDES permit or applicable water quality standards.
   4. A change in any condition in either the industrial user of the POTW that requires either a temporary or permanent reduction or elimination of the authorized discharge.
   5. Information indicating that the permitted discharge poses a threat to the City's collection and treatment systems, POTW personnel or the receiving waters.

PART IV
GENERAL CONDITIONS (continued)

6. Violation of any terms or conditions of the permit or other law or regulation.
7. Misrepresentation or failure to disclose fully all relevant facts in the permit application or in any required reporting.
8. To correct typographical errors in the permit.
9. Upon request of the permittee, provided such request does not create a violation of any applicable requirements, standards, laws, or rules and regulations.

J. The permittee will be notified of any proposed changes in this permit at least thirty (30) days prior to the effective date of the change. Any change or new condition in this permit shall include a provision for a reasonable time schedule for compliance. The permittee may appeal the decision of the Superintendent in regard to any changed permit conditions.

K. Sections 20-15-76 through 20-15-88 of the City of LaGrange's sewer use ordinance provide penalties for violations of the ordinance. Penalties may include fines of up to $1000 per day and/or imprisonment of up to six months. In addition, the City may recover fines, fees, and other expenses of litigation.

L. Any permittee who commences the discharge of hazardous waste shall notify the Superintendent, the EPA Regional Waste Management Division Director, and state hazardous waste authorities, in writing, of any discharge into the POTW of a substance which, if otherwise disposed of, would be a hazardous waste under 40 CFR Part 261. Specific notification requirements are contained in Section 20-15-68 of the City's sewer use ordinance.

M. Within 60 days of permit issuance, the permittee shall submit an accidental discharge/slug control plan for approval by the Superintendent. Section 20-15-39 of the sewer use ordinance contains minimum plan requirements. Any subsequent changes to the approved plan shall be submitted to the Superintendent within 30 days of modification.

PART V
SPECIAL CONDITIONS

The permittee shall comply with following special conditions:

-Permittee shall maintain, in good working order, lint removal equipment which has been approved by the City of LaGrange.

ATTACHMENT C: July 27, 2007 Memo from Bennett Regarding Tank Volumes

To: Mr. Andrew Taft Data: July 27, 2007
From: Kent Bennett
Subject: Tank Volumes for EPD PA

This memo is to respond to the telephone conversation between you and I concerning your request for the volume capacity of the tanks listed below.

Volume of tanks (in gallons).

Hillside Plant

pH Neutralization Pit	16,807 gallons	
Reagent tank 1	250 gallons	
Reagent tank 2	250 gallons	
Fuel oil tank	200,000 gallons not used (empty)	
Fuel oil tank	100,000 gallons	(#6 fuel oil)

Valway Plant

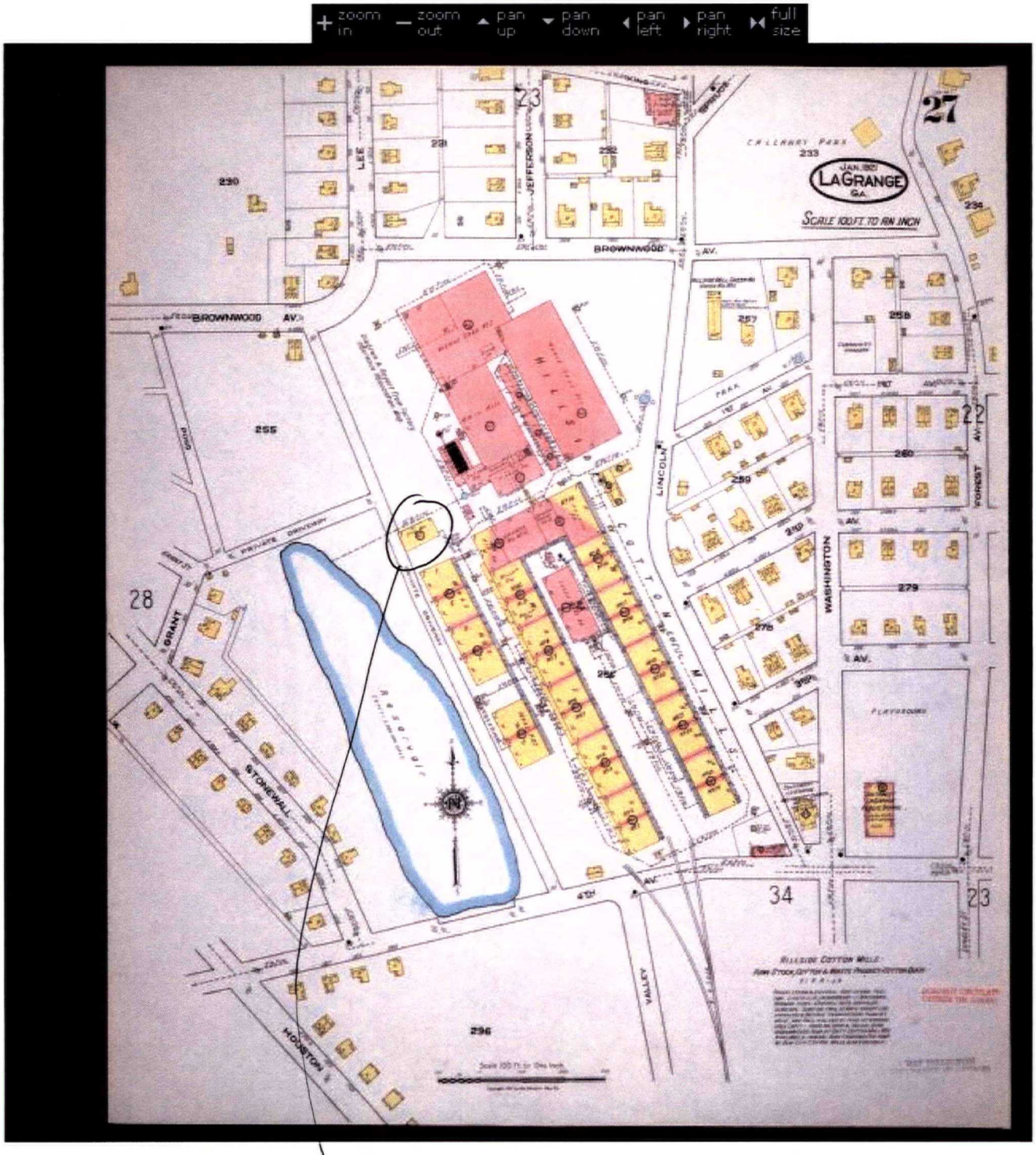
Tank Farm North East corner

Toluene tank #1	10,000 gallons
Storage tank #2	10,000 gallons (not used)
Storage tank #3	10,000 gallons (not used)
Storage tank #4	10,000 gallons (not used)

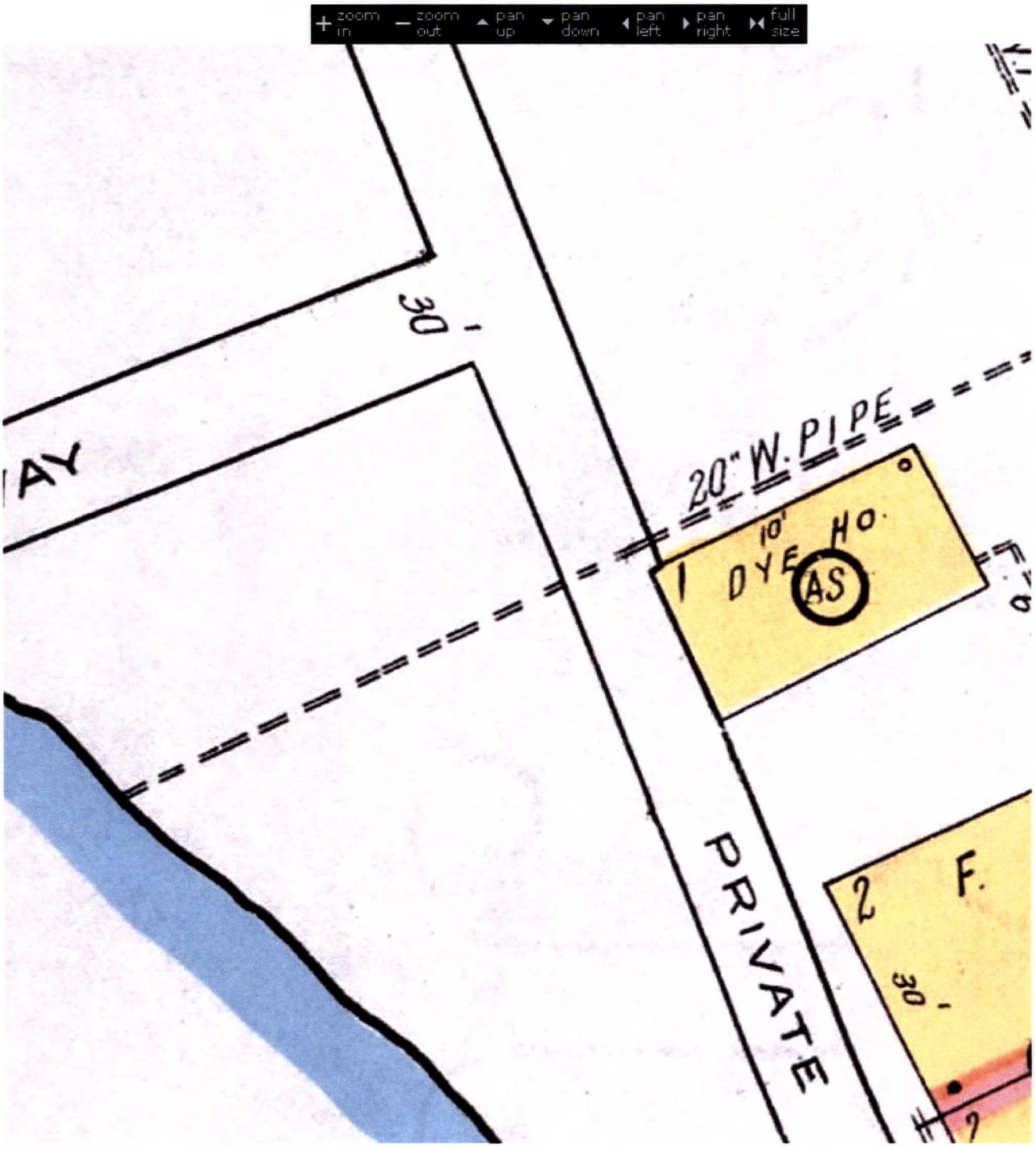
Zinc Wastewater tanks

Tank #1	12,000 gallons
Tank #2	12,000 gallons

ATTACHMENT D: January 1920 Sanborn Map for LaGrange, GA



Former Dye House Location


zoom in
zoom out
pan up
pan down
pan left
pan right
full size
30 '
AY
20" W. PIPE
10'
DYE HO.
1
AS
PRIVATE
2
F.
30 '

ATTACHMENT E: Logbook Documentation

DEPARTMENT OF NATURAL RESOURCES

Environmental Protection Division
Hazardous Waste Management Branch

Andrew S. Taft
Environmental Specialist

Floyd Towers East, Suite 1154
2 Martin Luther King Jr. Drive, S.E.
Atlanta, Georgia 30334

Office: (404) 656-2830 Fax: (404) 651-9425
Email: andy_taft@dnr.state.ga.us Website: www.dnr.state.ga.us/epd

7/19/2007

Hillside Textile Mill
Lagrange, GA

leave ATL 7:16 AM

veh. # 121808 60,729

arrive 9:30 AM

Photo #1, 9:30 AM SW

Sign @ front entrance

AST

Russ Bethea
- Environ Sup
Martin Marietta

Mr. Bethea
Conditionally exempt
boy waste generator

Title 5 exempt
Storm Water Permit
Wastewater permit

Boiler
VOC of dye range
dye fiber

2 AST

dye one color but colors
Change
do not do patterns

No dry cleaning operation
since I've been here
Mr. Bennett.

Dyes have VOCs
waste water generated
by dying process goes to
the city

* wastewater permit with City of
La Grange

AST 3

surface water body
water used for fire pond

do treat for pH
monitor for pH
Continuous monitoring in retention basin.

Hillside community surrounds mill

Initial plant 1913

Fire pond
stormwater source

floods every 2-3 years

AST

intermittent stream is currently almost dry

don't send anything to landfill

have a compactor taken to clearing area
- trucked to Savannah
1 of 2 incinerator sites

restrooms & dye house to sewer

used oil sent-off site

parts-cleaner with non-haz solvent

pick-up 4 times a year

AST

food waste.

Canteen waste and trash, floor sweep
sent to incinerator

Managed by 2 Groups

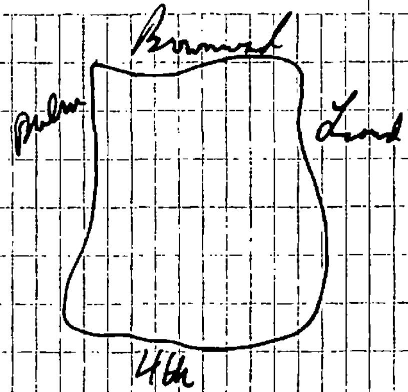
- Hillside location
  - Carpet
  - dye some fibers (low volume)
  - tuft process (dry process

- Valway location
  - finishing plant
  - treat industrial fabrics
  - automotive air bag fabrics
  - scour bath heat setting

multitude of protocols

make fabric more adhesive to rubber

AST



Dye house on Sanborn Map
no longer located

Mr Bennett

Tufting

process by which
yarns are sewed down
into a substrate

Gray carpet ready for
dying

95% of yarns are not

AST

dyed at this location

on Sanborn Map
dyhouse distroyed about
2002

almost exclusively tuft
white carpet and print
pattern at another location.

Mr. Bennett
Long Cane Fishing?
don't know

8 ABT

Mr. Bennett
Only make carpet

254 acres

upgradient water shed
from plant

drainruns - underneath Palm
Street not connected

Storm water drains
connect to outfall

ABT 9

Out fall just west of north part of fire pond

Photo #2 E 10:42 AM

33.02350
85.05062

there was water in it

Mr. Bethae
hasn't seen dry in
the past 9 years

however 9 years ago
there were just a few

AST

puddles.

Photo #3 SE 10:45
meanderous flow pattern

N.
always has water,
not always flowy

Mr. Bennett
lots of turtles in
fire pond
possible moccasins

AST

Mr. Bethea says
fire pond never
dries up

hasn't
overflowed
in at least 1½ yrs.

Photo #4 NE 10:53

4th Ave outfall
Culvert goes under Rd
fire pond drains when
12 heavy rain AST

Power distribution Center
S of 4 Ave
Mr. Beth indicated
nothing else S of plant

---

retension tank

Mr. B
Most of time wastewater is acidic

caustic scour
Caustic scour solution with acted

take poly acids out of yeast
dizzing AST

13.

haven't added acid or
Caustic in over year 1/2

15 x 15 x 15

Photo #5 SW 11:09

Wastewater treatment tanks

33.02327
85.05067

discharged to sewer

normally add caustic

M. Bethel
have point source treatment
at machines that generate
wastewater

M. B
Compactor for regular
waste
C & C Sanitation pickup
Compacted trash
~~might be~~
No production materials
other than floor sweep rem-
- wants

Bail up yarn & carpet remnants for re-sale

Waste reclamation people by it, not sure what it is used for

Sell cardboard & cardboard rolls

Separate waste streams for re-use

---

only wastewater and solid waste goes off-site for disposal

Valway has their own air permit

Wastewater from rinsing yarn (no soap fiber or other chemicals

fiber is nylon

also make polypropelly

Maxell

Fiber optics & conduit

Mr. B

Area of Ryehouse on
Sanborn Map

- estimate building
was destroyed around 2000

- hasn't been using
for 20 years

- did used to dye in
kettles in former
building

18. At least 12 years ago

ABT

area covered by asphalt
Concrete & built

Mr. Moe

Iron bay solid waste

Metal gets recycled
Cardbord gets recyled

Trash goes in compactor
goes to same place
as Hellrude plant

ABT

19

Small
~~large~~ quantity generator

been inspected by Hanks
Waleski
Linda Waleski

Coating is LQG

Tanks contain Zinc

2 tanks
6'000 gal
5'000 gal

33.02265
85.05013

Photo 6 11:43 SW

ABT

formaldehyde
ammonia
latex
} goes into wastewater stream

however, sometimes
conc. gets drumed up
and shipped offsite

GCP
doesn't inspect Hillside

ABT

latex wastestream
(non-bag)

have 7 settleable ammonia
ponds

55-gall drums labeled
as such

phenol/formaldehyde latex
waste

discharged to city sewer

Currently sending off-site
as non-bag

5-gal bucket
for alkaline batteries
handling as universal
waste

---

1 parts cleaner

uses
Premier Gold 150

Sampled every 6 mths
to ensure non-bag

Change out every 6 mths
done with Mr. B

1 aerosol puncture drum

Storage Area

4-drum 55 non-bag latex waste

10-boxes bulb universal

5-5 gal bucket batteries & ballast universal

1-55 gal bag waste broken tubes SAP

Main products industrial textiles abrasives lawn mower grass bags ingredients in tires

as other non-hzg parts washers

Tolune used to

dissolve silicon

certain type of silicone

requires tolune dissolving

with tolune

tolune comes in

Bulk

part of air permit

recently lowered PEL of

tolune

---

tolune gets flashed

off and vented to the

TO

Thermal Oxidator

("TOX") in air permit

40 55
30 ~~55~~ gall drums
a month shipped off-site

Contains Toluene, MEK

Run 7

Emission Unit CURE

P001 F003 F005 U220

10,000 - 20,000 lbs
a month

Very expensive
to dispose

Silicone instead of
latex

for making airbags

---

50 - 100 drums a month
non-haz

Silicone, talk mostly
acrylic

40,000 + pounds
per month

Tank Farm

1 full of toluene product

10,000 x 4

3 empty

Photo 12:45 SE tank farm

North west corner of property

AST

Mr. B & Mr. Moe

Not aware of any stained soil or stressed Vegetation

2002

Clay pipe collected under building dammed up the creek

pumped out water

AST

old dye might have been released

storm water

didn't even know pipe existed

on site sealed up pipe

Current roofing

tar

decking replaced

painted with lead based paint

2 - roll offs

liners & tops

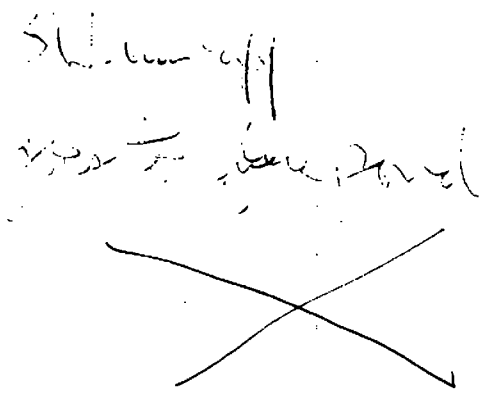
will probably pass TCLP

a little bit of paint on wood

conservatively handle

Old Lab Bldg
shut down a few
years ago
SE corner

"Research Bldg"
Vacant



34 ABT

Photo 1:14PM 5

Culvert Brownwood
north of plant
Creek dry in places
standing water in some
places

- Complete on-site recon 1:21 PM

Proceeded to Tax Assessor Office
for maps & property info.

Return ATL 5:05 PM 60,907
delayed by construction traffic
on 85N. ABT

35

Appendix C

U.S. EPA REGION IV

SDMS

Unscannable Material Target Sheet

DocID: 1108502 8 Site ID: GAD981275993

Site Name: Milliken & Company

Nature of Material:

Map:	☑	Computer Disks:	☐
Photos:	☐	CD-ROM:	☐
Blueprints:	☐	Oversized Report:	☐
Slides:	☐	Log Book:	☐

Other (describe): Site Map

Amount of material:

* Please contact the appropriate Records Center to view the material *

Appendix D

P R O P E R T Y R E C O R D C A R D

Date Printed 7/19/2007 — Card 1 of 4

Parcel Number: 060-2A-018-001 — PPIN 4564 Sketch 1

--- Card Appraisal Summary ----

	Land	Improvements	Total
	459,000	6,074,660	6,533,660

MILLIKEN & CO HILLSIDE PLANT
C/O L HEAGNEY M-416
P O BOX 1926

SPARTANBURG SC 29304-

Property Address: BROWNWOOD AVE 1300

----- Legal Description ------
1300 BROWNWOOD AVE

------ Sales Information -------

Date	Sales Price	Book	Page
1969		231	15

Previous Ownership

------ LAND INFORMATION -----

--------- COMMENTS ----------
HILLSIDE PLANT
CHILLERS/MISC EQUIP FROM PP 02

Lot Type	TC	Size	Acres Price	Depth	Adj	Description	Value
F	I3	30.60X	15000				459,000

Building Information — Effective

Bld	Type	TC	Class	Units	Total	Base	Adj.	Rate	$/SQFT	RepCost	Cnd	Year	Value
1	FACTORY	I1	L/D	82	82	55748	55748	1.62	14.90	866543	40	1917	346620
2	FACTORY	I1	L/D	84	84	39644	100386	1.71	15.73	1743163	36	1914	627540
3	FACTORY	I1	L/D	100	100	8142	21169	2.24	20.61	452015	38	1914	171770
4	FACTORY	I1	L/D	70	70	18540	18540	1.48	13.62	268863	40	1922	107550
5	FACTORY	I1	L/D	68	68	38647	43237	1.38	12.70	701636	38	1919	266620
6	FACTORY	I1	L/D	72	72	9825	9825	1.61	14.81	155140	38	1924	58950
7	FACTORY	I1	L/D	87	87	7107	7875	1.97	18.12	146715	50	1941	73360
8	OFFICE	I1	H/C+	20	101	121	1960	1960	3.68	33.86	79062	98	1991	77480

Construction Information

Bldg	Exterior	Units	Roof Type	Units	Roof Material	Units	Floors	Units
1	12" BRICK	20	ST TRUSS WD DECK	17	BU T&G	3	CONC ON GRADE	6
2	12" BRICK	20	WD TR & WD DK	13	BU T&G	3	DOUBLE PINE	10
3	12" BRICK	30	WD TR & WD DK	13	BU T&G	3	DOUBLE PINE	10
4	12" BRICK	10	WD TR & WD DK	13	BU T&G	3	CONC RAISED	8
5	12" BRICK	10	WD TR & WD DK	13	BU T&G	3	DOUBLE PINE	10
6	12" BRICK	10	ST TRUSS WD DECK	17	BU T&G	3	CONC RAISED	8

BLDG	INT WALL	UNITS	INT CEILING	UNITS	PLUMB UN	ELEC UN	AJUSTMENTS	UN
1	PAINTED	2	WOOD ON CEIL BD	7	NONE	MAXIMUM 5	1 HEIGHT	21
2	PAINTED	2	WOOD ON CEIL BD	7	NONE	MAXIMUM 5	2 HEIGHT	13
3	PAINTED	2	WOOD ON CEIL BD	7	NONE	MAXIMUM 5	2 MISC.EXTRAS	10
4	PAINTED	2	WOOD ON CEIL BD	7	NONE	MAXIMUM 5	3 HEIGHT	19
5	PAINTED	2	WOOD ON CEIL BD	7	NONE	MAXIMUM 5	3 MISC.EXTRAS	10
6	PAINTED	2	WOOD ON CEIL BD	7	NONE	MAXIMUM 5	4 HEIGHT	11

-- Extra Features --

BLD	Description	Value
1	SPRINKLER	3902
2	28/FIXTURES	3360
2	SPRINKLER	3738
2	SPRINKLER	3738
2	ELEVATOR(2)	7000
3	SPRINKLER	1709
4	4/FIXTURES	480
4	SPRINKLER	1297
5	STEAM 38647	11594
5	19/FIXTURES	2280
5	SPRINKLER	2705
6	SPRINKLER	687
6	OH DOORS(5)	360
7	SPRINKLER	437
8	2/2 FIXTURE	560
8	HEAT PU 1960	820

P R O P E R T Y R E C O R D C A R D

Date Printed 7/19/2007 — Card 2 of 4

Parcel Number: 060-2A-018-001 — PPIN 4564 Sketch 2

--- Card Appraisal Summary ---

	Land	Improvements	Total
	459,000	6,074,660	6,533,660

MILLIKEN & CO HILLSIDE PLANT
C/O L HEAGNEY M-416
P O BOX 1926

SPARTANBURG SC 29304-

Property Address: BROWNWOOD AVE 1300

----- Legal Description -----
1300 BROWNWOOD AVE

------ LAND INFORMATION -----

------ Sales Information -------

Date	Sales Price	Book	Page
1969		231	15

Previous Ownership

--------- COMMENTS ----------
HILLSIDE PLANT

Lot Type	TC	Size	Acres	Price	Depth	Adj	Description	Value
		30.6 ACS						

Building Information — Effective

Bld	Type	TC	Class	Units	Total	Base	Adj.	Rate	$/SQFT	RepCost	Cnd	Year	Value
8	FACTORY	I1	L/D	111	111	9272	16722	2.49	22.91	398354	75	1969	298770
9	FACTORY	I1	L/D	90	90	2585	3102	2.21	20.33	64720	40	1914	25890
10	FACTORY	I1	L/D	139	139	4214	4396	3.27	30.08	137098	40	1914	54840
11	FACTORY	I1	L/D	86	86	1090	1090	2.30	21.16	23064	40	1914	9230
12	FACTORY	I1	L/D	63	63	484	484	1.75	16.10	7792	40	1914	3120
13	OFFICE	I1	H/D	99	99	5920	10656	2.93	26.96	391209	75	1967	293410
14	FACTORY	I1	L/D	94	94	62400	66750	1.81	16.65	1719029	75	1967	1289270
15	FACTORY	I1	L/D	68	68	272	272	1.89	17.39	4730	40	1900	1890
16	FACTORY	I1	L/D	68	68	225	225	1.89	17.39	6121	75	1970	4590

Construction Information

Bldg	Exterior	Units	Roof Type	Units	Roof Material	Units	Floors	Units
8	BRICK & MASONRY	28	BJ & RIGID INS	14	BU T&G	3	C/ON GR/C. RSED	7
9	12" BRICK	30	ST TRUSS WD DECK	17	BU T&G	3	DOUBLE PINE	10
10	12" BRICK	41	ST TRUSS WD DECK	17	BU T&G	3	CONC ON GRADE	6
11	12" BRICK	41	PRE-STRESS CONC	10	BU T&G	3	CONC ON GRADE	6
12	12" BRICK	41	PRE-STRESS CONC	10	BU T&G	3	CONC ON GRADE	6
13	BRICK & MASONRY	28	BJ & RIGID INS	14	BU T&G	3	CARPET & U.	12

BLDG	INT WALL	UNITS	INT CEILING	UNITS	PLUMB	UN	ELEC	UN
8	PLASTER NO FURR	12	SUSPENDED ACC TL	17	NONE		MAXIMUM	5
9	PAINTED	2	PAINTED	2	NONE		MAXIMUM	5
10	PAINTED	2	PAINTED	2	NONE		MAXIMUM	5
11	UNFINISHED		UNFINISHED		NONE		MAXIMUM	5
12	UNFINISHED		UNFINISHED		NONE		AVERAGE	3
13	PLASTER NO FURR	12	SUSPENDED ACC TL	17	AVERAGE	8	MAXIMUM	5

	AJUSTMENTS	UN
8	MISC.EXTRAS	25
9	HEIGHT	20
10	HEIGHT	62
11	HEIGHT	21
14	HEIGHT	21
14	MISC.EXTRAS	10

-- Extra Features --

BLD	Description	Value
8	3/FIXTURES	360
8	SPRINKLER	1298
9	SPRINKLER	180
10	2/FIXTURES	240
10	SPRINKLER	289
13	FHA/AC 5920	5328
13	FHA/AC 4736	3220
13	16/FIXTURES	1920
13	SPRINKLER	828
14	14/FIXTURES	1680
14	SPRINKLER	4368
14	CHILLER	60000
16	2/FIXTURES	240

P R O P E R T Y R E C O R D C A R D

Date Printed 7/19/2007 — Card 3 of 4

Parcel Number
060-2A-018-001

PPIN 4564 Sketch 3

MILLIKEN & CO HILLSIDE PLANT
C/O L HEAGNEY M-416
P O BOX 1926

SPARTANBURG SC 29304-

----- Legal Description ------
1300 BROWNWOOD AVE

------ LAND INFORMATION -----

--- Card Appraisal Summary ----

Land	Improvements	Total
459,000	6,074,660	6,533,660

Property Address: BROWNWOOD AVE 1300

------ Sales Information -------

Date	Sales Price	Book	Page
1969		231	15

Previous Ownership

--------- COMMENTS ----------
HILLSIDE PLANT

Lot Type	TC	Size	Acres	Price	Depth	Adj	Description	Value
		30.6 ACS						

Building Information — Effective

Bld	Type	TC	Class	Units	Total	Base	Adj.	Rate	$/SQFT	RepCost	Cnd	Year	Value
17	FACTORY	I1	L/D	83	83	26936	26936	1.69	15.55	440613	15	1923	66090
18	FACTORY	I1	L/D	79	79	61398	65858	1.52	13.98	970163	40	1918	388070
19	FACTORY	I1	L/D	45	45	5100	6120	1.04	9.57	61852	40	1918	24740
20	FACTORY	I1	L/D	62	62	17300	17300	1.33	12.24	227309	40	1918	90920
21	FACTORY	I1	L/F	-24	59	35	676	676	.97	8.92	6030	40	1918	2410
23	WAREHOUSE	I1	L/D		75	75	61957	63526	1.45	13.34	891744	85	1977	757980
24	WAREHOUSE	I1	L/D		95	95	8755	8755	2.13	19.60	177228	40	1918	70890
25	FACTORY	I1	L/D		83	83	59535	59535	1.64	15.09	936719	40	1918	374690
26	FACTORY	I1	L/D		52	52	11397	11397	1.15	10.58	127719	40	1914	51090

Construction Information

Bldg	Exterior	Units	Roof Type	Units	Roof Material	Units	Floors	Units
17	WOOD & SHEATING	33	WD TR & WD DK	13	BU T&G	3	CONC RAISED	8
18	W/SHTN /CB/PLN	32	WD TR & WD DK	13	BU T&G	3	CONC ON GRADE	6
19	WOOD & SHEATING	16	PRE-STRESS CONC	10	BU T&G	3	CONC ON GRADE	6
20	12" BRICK	20	WD TR & WD DK	13	BU T&G	3	CONC ON GRADE	6
21	12" BRICK	41	FLAT SHED	7	ROLL COMP	2	CONC ON GRADE	6
23	CORR. METAL	16	HIP	8	SHEET METAL	2	CONC. & TILE	7

BLDG	INT WALL	UNITS	INT CEILING	UNITS	PLUMB	UN	ELEC	UN	AJUSTMENTS	UN
17	PAINTED	2	WOOD ON CEIL BD	7	NONE		MAXIMUM	5	17 HEIGHT	11
18	PAINTED	2	WOOD ON CEIL BD	7	NONE		MAXIMUM	5	18 HEIGHT	10
19	PAINTED	2	PAINTED	2	NONE		MAXIMUM	5	20 HEIGHT	10
20	PAINTED	2	PAINTED	2	NONE		MAXIMUM	5	23 FR OPEN STEE	21
21	UNFINISHED		UNFINISHED		NONE		AVERAGE	3	23 HEIGHT	16
23	UNFINISHED		UNFINISHED		NONE		MAXIMUM	5	24 HEIGHT	12

-- Extra Features --

BLD	Description	Value
17	4/FIXTURES	480
17	SPRINKLER	1885
18	9/FIXTURES	1080
18	SPRINKLER	4297
19	SPRINKLER	357
20	4/FIXTURES	480
20	SPRINKLER	1211
23	4/FIXTURES	480
23	SPRINKLER	4336
24	SPRINKLER	612
25	SPRINKLER	4167
26	SPRINKLER	776

PROPERTY RECORD CARD

Date Printed 7/19/2007 — Card 4 of 4

Parcel Number: 060-2A-018-001 — PPIN 4564 Sketch 4

MILLIKEN & CO HILLSIDE PLANT
C/O L HEAGNEY M-416
P O BOX 1926

SPARTANBURG SC 29304-

Property Address: BROWNWOOD AVE 1300

--- Card Appraisal Summary ---

Land	Improvements	Total
459,000	6,074,660	6,533,660

------ Sales Information -------

Date	Sales Price	Book	Page
1969		231	15

Previous Ownership

----- Legal Description ------
1300 BROWNWOOD AVE

------ LAND INFORMATION -----

--------- COMMENTS ----------
HILLSIDE PLANT

Lot Type	TC	Size	Acres	Price	Depth	Adj	Description	Value
		30.6 ACS						

Building Information — Effective

Bld	Type	TC	Class	Units	Total	Base	Adj.	Rate	$/SQFT	RepCost	Cnd	Year	Value
27	WAREHOUSE	I1	L/D	95	95	8250	8250	2.13	19.60	190928	85	1979	162290
28	ASPHALT PAVING	I1	A			6200	6200	.06	.55	3410	50	1979	1710
29	CONCRETE PAVING	I1	A			15400	15400	.17	1.56	24024	50	1979	12010
30	SMOKE STACK 160'TALL	I1										1929	17000
31	24 TANKS 20000 GAL EA	I1										1979	117600
32	WOOD DOCK OR DECK	I1	G			19600	19600	1.28	11.78	230888	98	2003	226270

Construction Information

Bldg	Exterior	Units	Roof Type	Units	Roof Material	Units	Floors	Units
27	CORR. METAL	16	GABLE	8	SHEET METAL	2	CONC ON GRADE	6

-- Extra Features --

BLD	Description	Value
27	SPRINKLER	577
27	FENCE 6FT	2600

BLDG	INT WALL	UNITS	INT CEILING	UNITS	PLUMB	UN	ELEC	UN
27	UNFINISHED		UNFINISHED		NONE		MAXIMUM	5

AJUSTMENTS	UN
27 FR OPEN STEE	21
27 HEIGHT	37

Par
060-2A-018-001

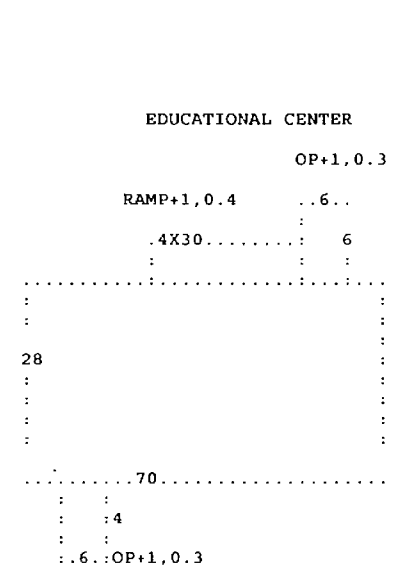
Card 1 of 4

PERMIT#5441 HAND SKETCH

#0300022-$300,000.00-HILLSIDE DOCK-1/17/03.3/30/04-JOEL AND MR LANGFORD REVIEW-
ED.DOCK LOCATED ON SKETCH #4.

Adjustments		
4	MISC.EXTRAS	10
5	HEIGHT	7
5	MISC.EXTRAS	10
6	HEIGHT	9
6	MISC.EXTRAS	10
7	HEIGHT	26

DELTA COMPUTER SYSTEMS, INC.



Bld	Desc	Calculation	Gross	Stories	Adj%	Adj Area	Second Floor
1	DYE	154X362	55748	1.0	1.0	55748	
2	MILL	138X258	35604	3.0	2.6	92570	56966
2	ELEV	16X30	480	3.0	2.6	1248	768
2	ROOM	40X42	1680	1.0	1.0	1680	
2	ROOM	40X47	1880	3.0	2.6	4888	3008
3	PICK	59X138	8142	3.0	2.6	21169	13027
4	STOR	U60R317D60L188U16L30D16L99	18540	1.0	1.0	18540	
5	WEAV	U227R131D29R45D198L176	38647	1.0	1.0	38647	
5	BSMT	150X153	22950	1.0	.2	4590	
6	WARP	75X131	9825	1.0	1.0	9825	
7	WARP	50X125	6250	1.0	1.0	6250	
7	WARP	409X1	409	1.0	1.0	409	
7	WARP	16X28	448	2.0	1.8	806	358
7	CAN	U37R49D21L28D16L21	1365	1.0	.3	410	
8	IND	28X70	1960	1.0	1.0	1960	

HAND SKETCH

DELTA COMPUTER SYSTEMS, INC.

Bld	Desc	Calculation	Gross	Stories	Adj%	Adj Area	Second Floor
8	DRUG	61X152	9272	2.0	1.8	16690	7418
8	CAN	4X40	160	1.0	.2	32	
9	WEAV	47X55	2585	1.0	1.0	2585	
9	BSMT	47X55	2585	1.0	.2	517	
10	BOIL	53X78	4134	1.0	1.0	4134	
10	RR	8X10	80	1.0	1.0	80	
10	UTIL	U24R13D12R12D12L25	456	1.0	.4	182	
11	TRAN	U35R32D20L2D15L30	1090	1.0	1.0	1090	
12	STOR	22X22	484	1.0	1.0	484	
13	OFF	74X80	5920	2.0	1.8	10656	4736
14	TUFT	240X260	62400	1.0	1.0	62400	
14	CAN	50X150	7500	1.0	.5	3750	
14	DOCK	50X60	3000	1.0	.2	600	
15	THSE	16X17	272	1.0	1.0	272	
16	GHSE	15X15	225	1.0	1.0	225	

Par.
060-2A-018-001

Card 3 of 4
Adjustments
25 HEIGHT 21

HAND SKETCH

DELTA COMPUTER SYSTEMS, INC.

Bld	Desc	Calculation	Gross	Stories	Adj%	Adj Area	Second Floor
17	DYE	148X182	26936	1.0	1.0	26936	
18	BLDG	81X758	61398	1.0	1.0	61398	
18	CAN	13199X1	13199	1.0	.2	2640	
18	CAN	28X130	3640	1.0	.5	1820	
19	STRG	51X100	5100	1.0	1.0	5100	
19	BSMT	51X100	5100	1.0	.2	1020	
20	BLDG	100X173	17300	1.0	1.0	17300	
21	STRG	26X26	676	1.0	1.0	676	
23	WHSE	61957X1	61957	1.0	1.0	61957	
23	CAN	7845X1	7845	1.0	.2	1569	
24	WHSE	85X103	8755	1.0	1.0	8755	
25	WHSE	81X735	59535	1.0	1.0	59535	
26	BLDG	81X137	11097	1.0	1.0	11097	
26	RR	U20R20D10L10D10L10	300	1.0	1.0	300	

HAND SKETCH

32) DOCK 19600 SQ FT

DELTA COMPUTER SYSTEMS, INC.

Bld	Desc	Calculation	Gross	Stories	Adj%	Adj Area	Second Floor
27	WHSE	75X110	8250	1.0	1.0	8250	
28	ASPH	6200X1	6200	1.0	1.0	6200	
29	CONC	15400X1	15400	1.0	1.0	15400	
30	SMST			1.0	1.0		
31	TANK			1.0	1.0		
32	WDK	19600X1	19600	1.0	1.0	19600	

Appendix

E

Basic Search

Keyword

Go

Advanced Search
Previous Results

Address Search

(e.g., *123 Main St East*)

All Cities

Go

Browse

- by City/County
- by Year

About the Collection

Brief History

The map images delivered by this site are derived from the holdings of the University of Georgia

Libraries Map Collection. The Sanborn Map Company® originally gave the maps to the Library of Congress as a part of the copyright deposit process. Between 1955 and 1978, the Library of Congress Geography and Map Collection withdrew duplicate sets of Sanborn® maps offering them to libraries in various states. The University of Georgia applied for and was granted copies of the Georgia Sanborn® maps.

The University of Georgia Libraries Map Collection holds Sanborn® maps of Georgia towns published between 1884 and 1935, and it holds microfilm copies for maps dated 1935-1985. For a complete list of the University of Georgia Libraries' Sanborn® map holdings, see the Sanborn® Maps at the University of Georgia Libraries page.

What are Sanborn® Fire Insurance Maps?

The Sanborn® maps are large-scale maps of U.S. cities and towns. Originally designed for purposes of fire insurance assessment, the maps are highly detailed, showing not only the location and size of buildings and streets, but also the placement of water mains, fire walls, and other urban features.

Each city or town is mapped on one or more sheet that includes the downtown region, some housing areas, and local mills. Outlying mill sites and small populated centers in the country near a town are sometimes included as insets.

What are Sanborn® Maps used for?

Perhaps the most frequent use is to acquire a copy of a section of a Sanborn® Map, showing a structure which is being presented for addition, for inclusion with an application to have that structure added to The National Register of Historic Places. It is one of the proofs requested, to provide justification for adding the property. In addition, they may also be used:

- by people engaged in bottle collecting or metal detecting to research sites.
- to study/research sequential occupance changes in a building, a block, or a section of town.
- in some aspects of environmental research (e.g. whether an old service station may have ever occupied the property with the gas tanks possibly never having been dug up).
- to attempt to ascertain the original plan of a structure or the arrangement of structures on a property.
- to obtain some information related to genealogical inquiry.

Last modified: August 08, 2007

SANBORN® FIRE INSURANCE MAPS
FOR GEORGIA TOWNS AND CITIES, 1884-1922

- Home
- About
- Bibliography
- RelatedLinks
- Help

Basic Search

Keyword

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Advanced Search
Previous Results

Address Search

(e.g., *123 Main St East*)

All Cities

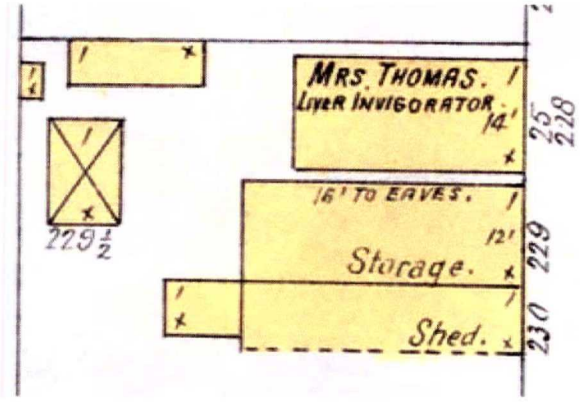
Go

Browse

- by City/County
- by Year

Sanborn® Fire Insurance Maps

From the collection . . .



For Georgia Towns and Cities, 1884-1922

Sanborn® Fire Insurance Maps for Georgia Towns and Cities, 1884-1922 consists of 4,445 maps by the Sanborn Map Company depicting commercial, industrial, and residential areas for 133 municipalities. Originally designed for fire insurance assessment, the color-coded maps relate the location and use of buildings, as well as the materials employed in their construction. The maps indicate which city utilities--such as water and fire service--were available.

Fire insurance maps document the changing face of towns and cities, providing highly detailed information for each neighborhood and block. The Library of Congress web site refers to them as "probably the single most important record of urban growth and development in the United States during the past one hundred years."

The Sanborn Maps® database is a project of the Digital Library of Georgia as part of Georgia HomePLACE. The project is supported with federal LSTA funds administered by the Institute of Museum and Library Services through the Georgia Public Library Service, a unit of the Board of Regents of the University System of Georgia. The maps represented are from the University of Georgia Libraries Map Collection.

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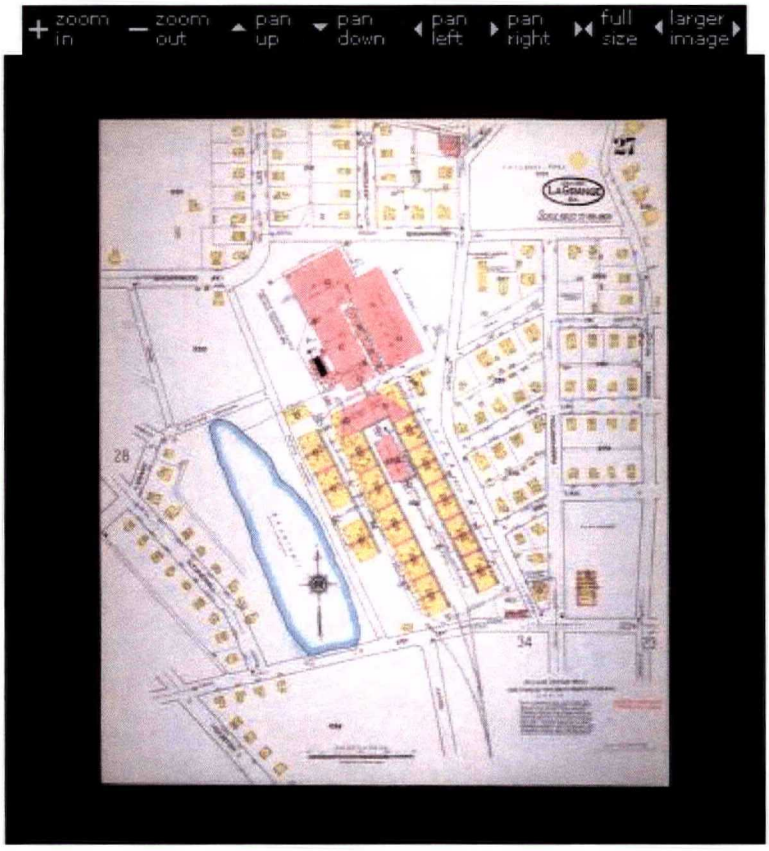
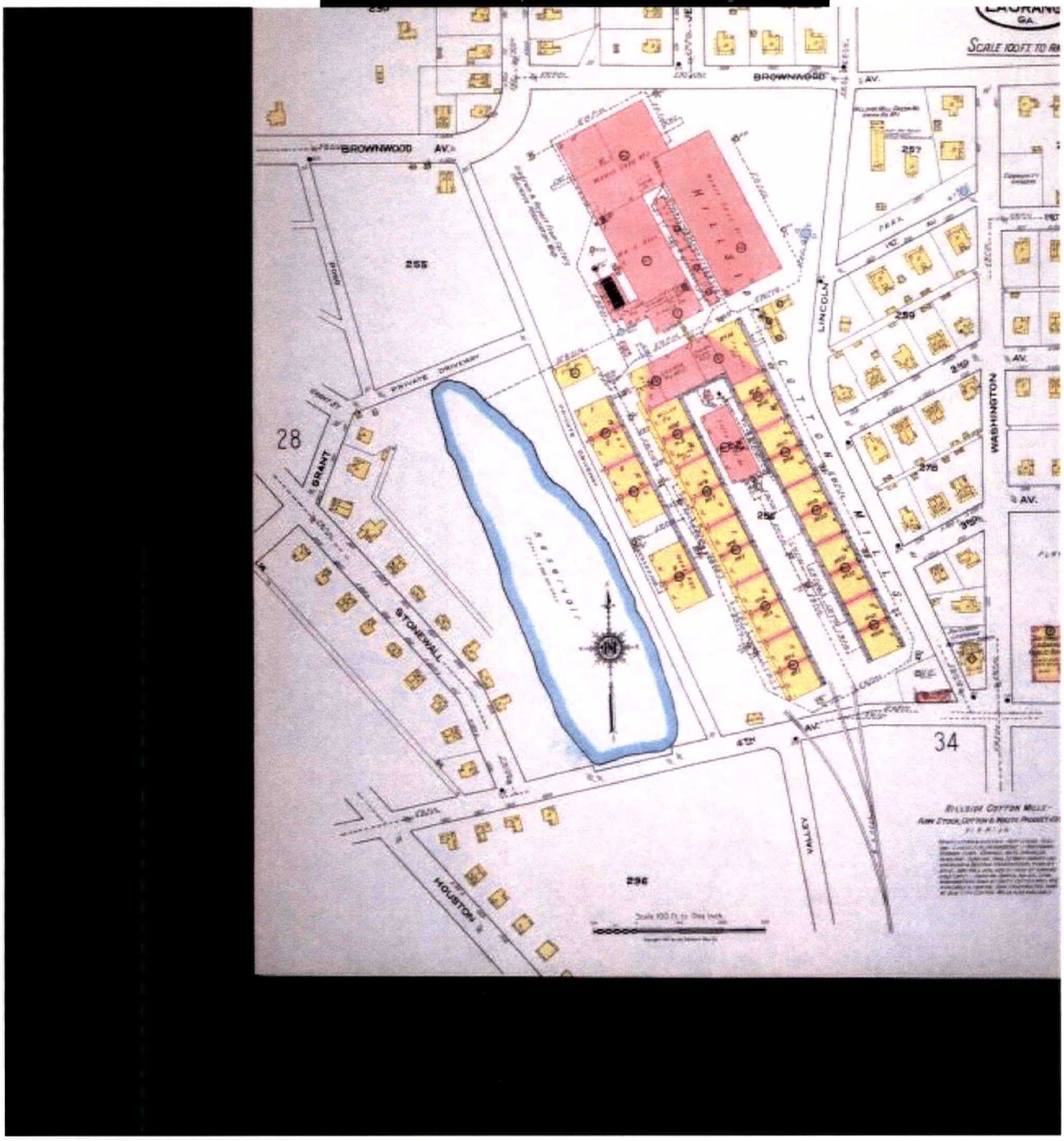
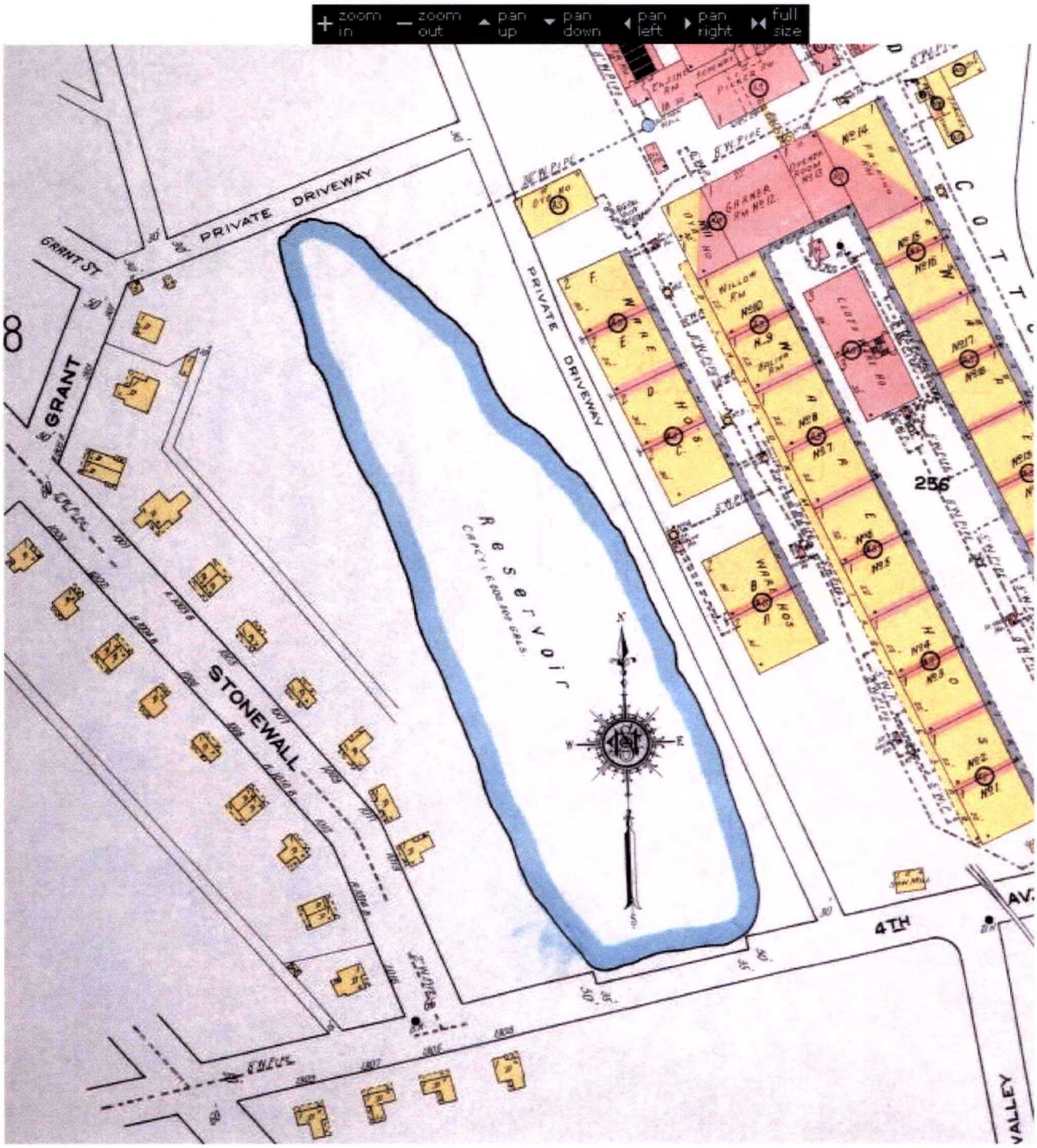


Larger Image | (Click on image to zoom in.)




zoom in
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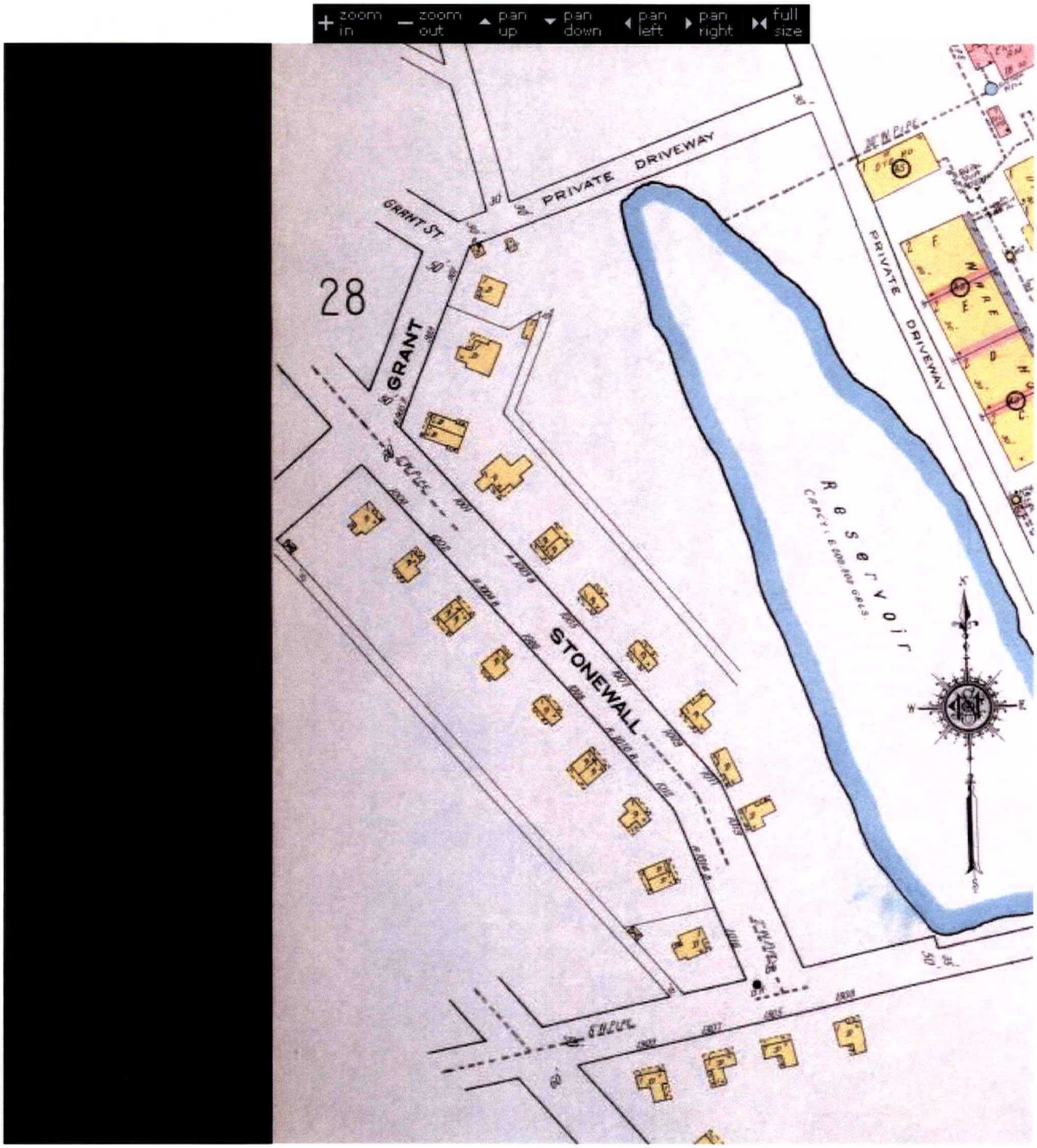
PRIVATE DRIVEWAY
GRANT ST
GRANT
STONEWALL
Reservoir
PRIVATE DRIVEWAY
4TH
256
VALLEY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GRANT ST
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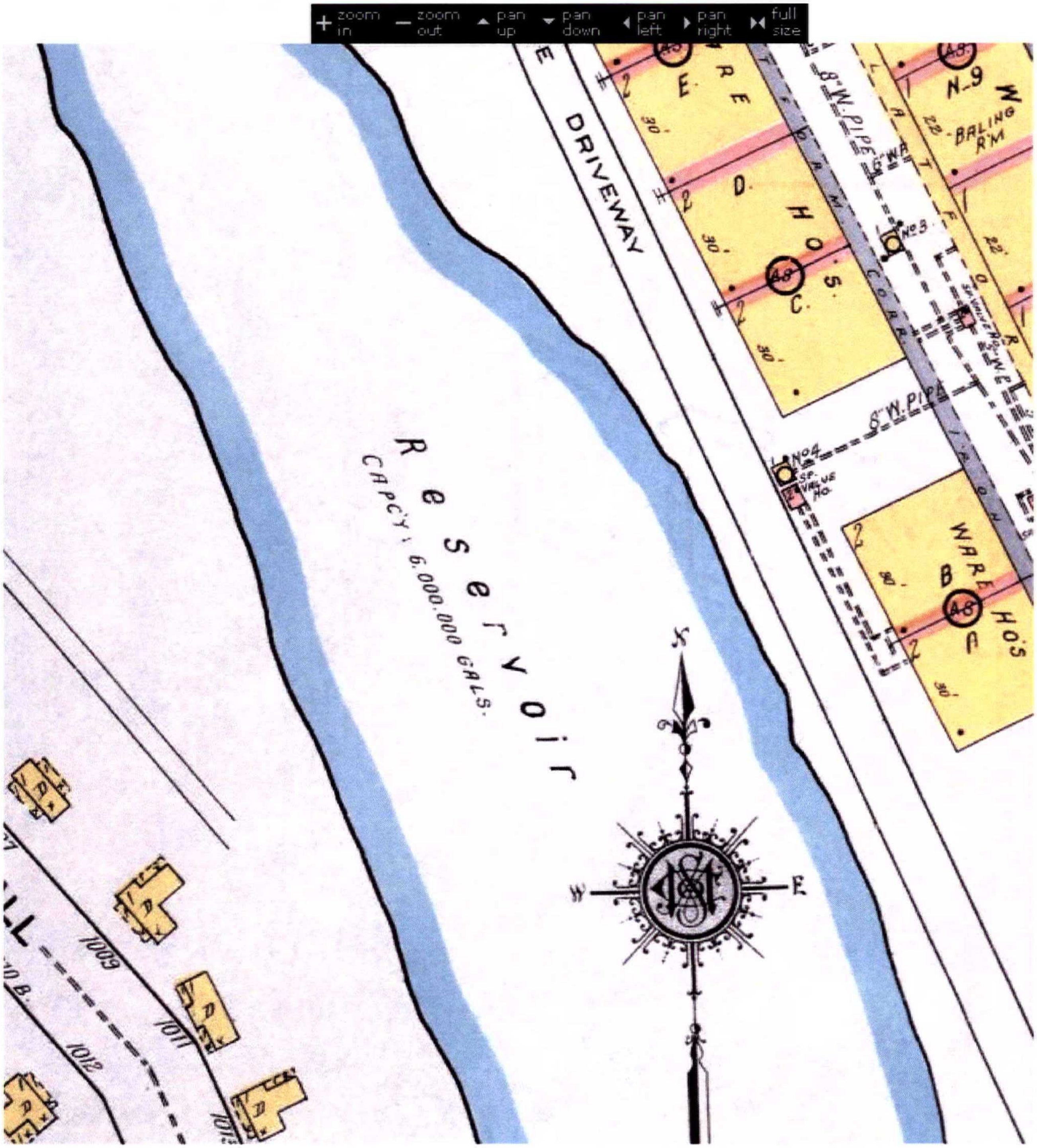
STONEWALL
Reservoir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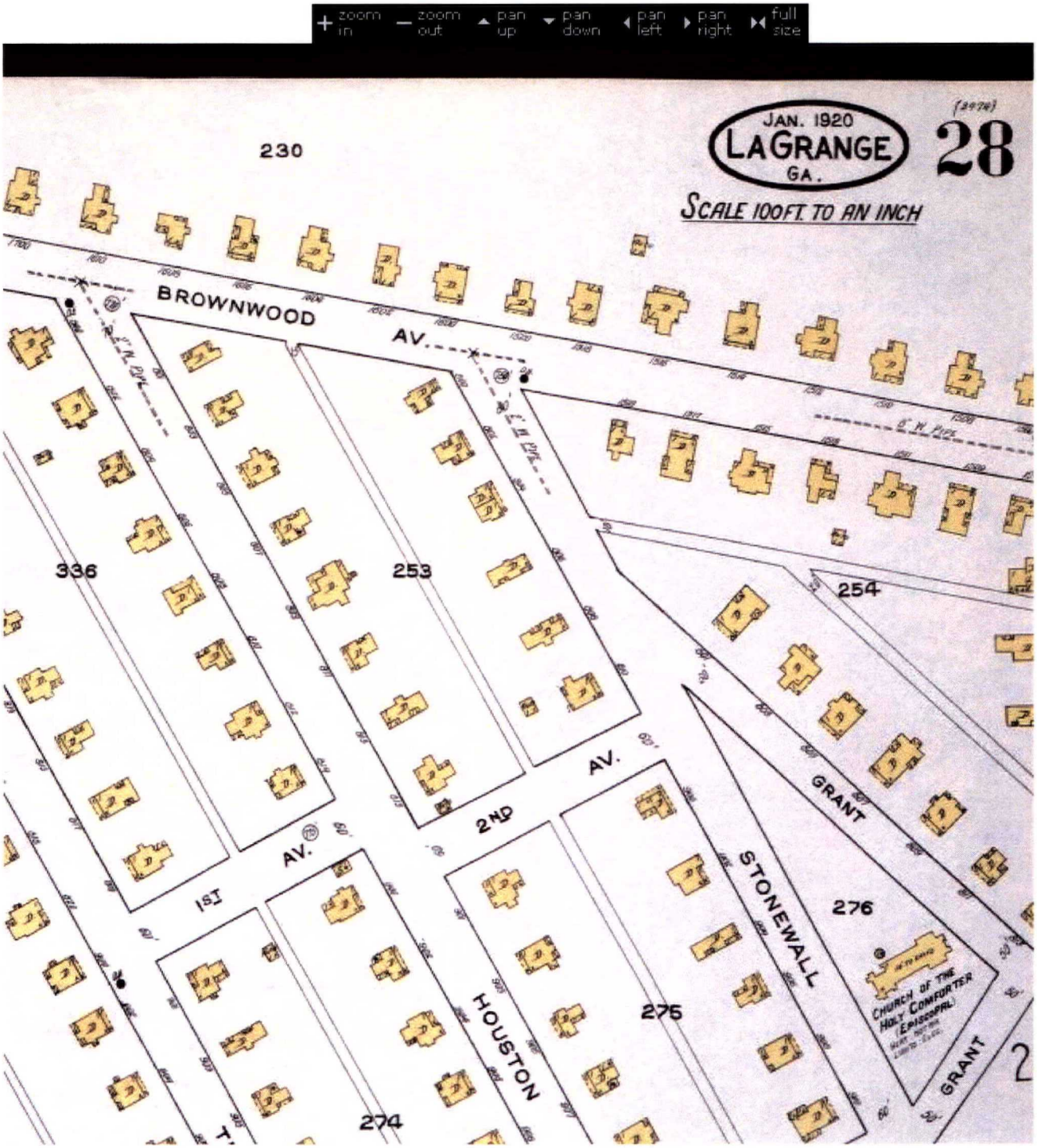
Reservoir
CAP'CY: 6.000.000 GALS.
DRIVEWAY
WARE HO'S.
WARE HO'S
8" W. PIPE
6" W.P.
BALING R'M
No. 9
No. 3
No. 4
SP. VALVE HO.
1009
1011
1012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JAN. 1920
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28
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BROWNWOOD
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2ND
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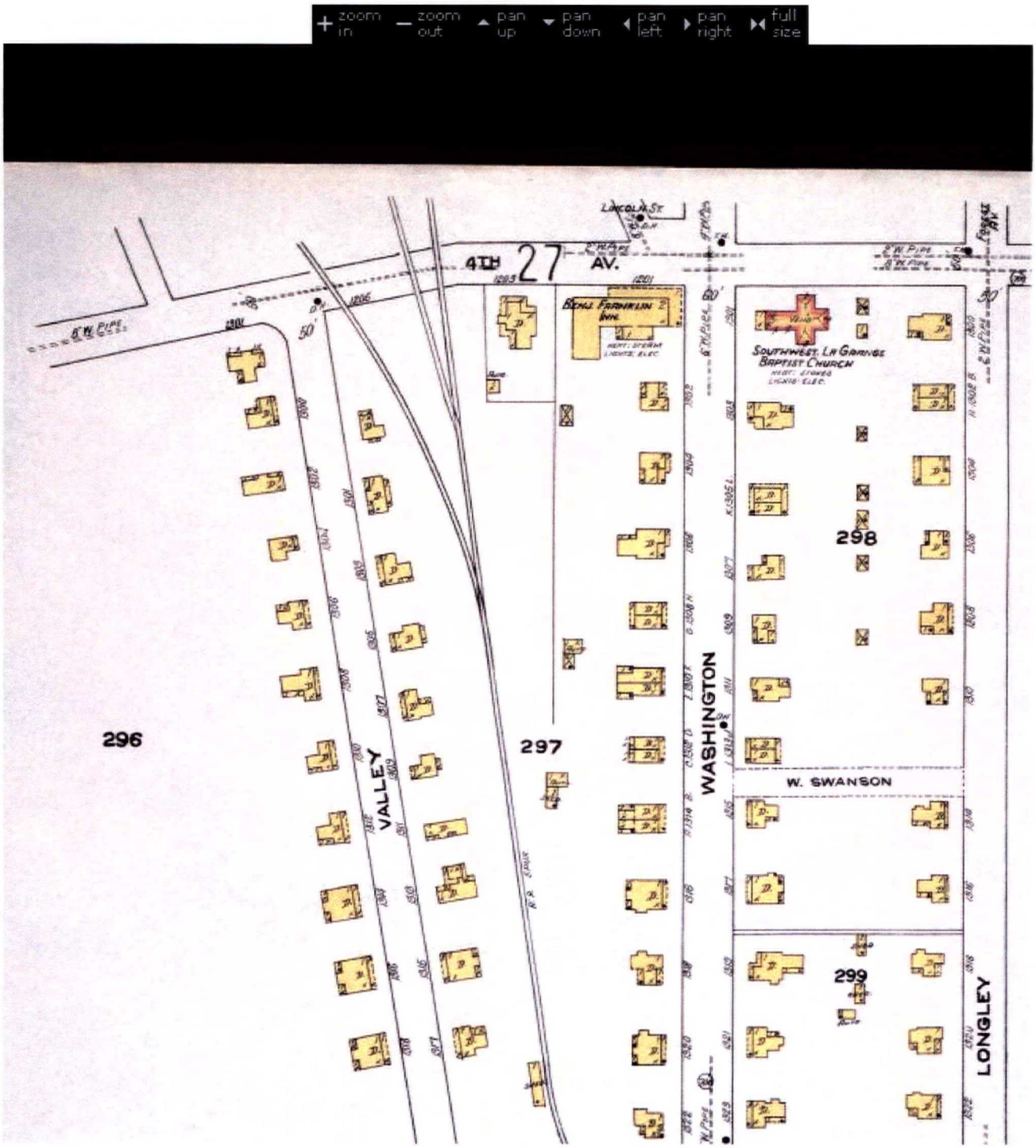
1ST
GRANT
STONEWALL
276
275
HOUSTON
274
CHURCH OF THE HOLY COMFORTER EPISCOPAL
GRANT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4TH AV.
27
BENJ. FRANKLIN INN.
SOUTHWEST LA GRANGE BAPTIST CHURCH
298
296
297
299
VALLEY
WASHINGTON
W. SWANSON
LONGLEY

Appendix

F

MILLIKEN

August 15, 2007

Mr. Andrew Taft
Floyd Tower East, Suite 1154
2 Martin Luther King Drive, SE
Atlanta GA 30334

Re: Milliken & Company Hillside Plant
Response to Request for Follow-up Information
Non-hazardous Discharge From Stormwater Outfall (April 18, 2002)

Dear Mr. Taft:

The following is in response to your e-mail of August 10.

With regard to the discharge from the storm water outfall that occurred on April 18, 2002:

Could you please provide me with more specifics about the non-hazardous textile finishing chemical (an acrylic emulsion containing carbon black)? For example, I would like to know all the chemicals and/or substances associated with this product. Does the substance have a trade name? Something like a MSDS would suffice.

I have attached copies of the MSDS for "Millitex Black GBB." Based on our established fabric finishing chemistries, this substance would have been present in the effluent at a concentration no higher than about 0.13% by weight.

In addition, I am including MSD Sheets for the several other constituents of the effluent. Based on established mix formulas, the total concentration of these constituents (including the Millitex Black GBB) did not exceed 0.6% of the effluent (the remainder being water).

Prior to discharge to the outfall, did the discharge occur in the Fire Pond? If not what path did the discharge take from its point of origin to the discharge point?

It appears from notes taken at the time that there was no discharge to the fire pond. A clay pipe, located under the plant, carried process wastewater to a municipal sewer line. Due to a small breach in the clay pipe (observable with in-pipe video), a small quantity of the process wastewater migrated to a nearby underground stormwater line that led to an outfall on the creek about 100 feet downstream from Fourth Avenue (near the southwest corner of the property).

Was the discharge point at the outfall located at the southwestern corner of the property, or some other outfall?

The discharge was at the southwestern corner of the property.

2. Unrelated to the previous questions, what is the rate of combined wastewater discharge to the city sewer system (daily weekly or monthly)?

The average daily effluent outflow for the last 12 months is 156,000 gpd.

If you need any further information regarding this matter please let me know. My telephone number is 706-880-3760.

Very truly yours,

Mark Thomas Moe
Senior Environmental Chemist
Valway/Hillside Coating
Milliken and Company

Enclosures:

Reports re incident and corrective actions taken (as submitted to Georgia EPD)

Correspondence with EPD regarding the compliance order

MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Identification

Product Name: Millitex Black GBB
Chemical Name: blend
Chemical Family: pigment dispersion
CAS Number: Blend

MILLIKEN CHEMICALS

Company Identification

Milliken Chemical
P.O. Box 817
1440 Campton Road
Inman, SC 29349 USA
1-864-472-9041 (For questions and emergencies)
1-800-424-9300 or 1-202-483-7616 (CHEMTREC)

2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	Amount	CAS Number
DIETHYLENE GLYCOL	3.5 %	111-46-6
ISOPROPANOL	0.4 %	67-63-0
AMMONIUM HYDROXIDE	0.4 %	1336-21-6
CARBON BLACK	25.0 - 35.0 %	1333-86-4

(See Section 8 for exposure guidelines)

(See Section 15 for regulatory information)

HAZARDS DISCLOSURE

This product contains hazardous materials as defined by the OSHA Hazard Communication Standard 29 CFR 1910.1200.

As defined under Sara 311 and 312, this product contains materials that are acute hazards.

3. HAZARDS IDENTIFICATION

********** EMERGENCY OVERVIEW **********

Prolonged or repeated contact may irritate the skin and cause a skin rash (dermatitis). Can cause eye irritation.

****

HMIS Rating -

Health: 1
Flammability: 0
Reactivity: 0
Personal Protection Index: B

POTENTIAL HEALTH EFFECTS

EYE:
May cause eye irritation.

SKIN:
Prolonged or repeated skin contact may cause irritation.

INHALATION:
Inhalation of high concentrations of vapor may be harmful. If allowed to dry, dust may be irritating to respiratory tract.

INGESTION:
May be harmful if swallowed.

CARCINOGENICITY INFORMATION:
Contains material which may cause cancer based on animal data.

4. FIRST AID MEASURES

EYE CONTACT FIRST AID:
Get medical attention if irritation develops or persists. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes.

SKIN CONTACT FIRST AID:
Wash affected area with large amounts of soap and water. Remove contaminated clothing and shoes. Get medical attention if irritation develops or persists.

INHALATION FIRST AID:
Avoid circumstances that produce respirable particles. If exposed to excessive levels of dust, remove to fresh air. Get medical attention if cough or other symptoms develop.

INGESTION FIRST AID:
Contact a physician.

5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES
COC Flash Point: > 148.9 C (> 300.0 F)
Autoignition Temperature: N/A

FLAMMABLE LIMITS IN AIR
LEL: N/A
UEL: N/A

EXTINGUISHING MEDIA:
Water, carbon dioxide, foam or dry powder.

FIRE & EXPLOSION HAZARDS:
Closed containers exposed to heat may rupture due to heat/pressure buildup.

FIRE FIGHTING INSTRUCTIONS:
Use water spray to cool fire exposed containers.

6. ACCIDENTAL RELEASE MEASURES

SAFEGUARDS (PERSONNEL):
Protect skin and eyes from exposure.

INITIAL CONTAINMENT:
Isolate Hazard Area. Contain spilled material. Water will increase the amount of colorant contamination.

LARGE SPILLS PROCEDURE:
Isolate Hazard Area. Contain spilled material. Do not allow material to enter soil or surface water. Do not attempt clean up with water. Take up and place in secure closed containers. All waste materials should be packaged, labeled, and transported in accordance with all national, state/provincial, and local requirements.

SMALL SPILLS PROCEDURE:
Secure the spill area. Take up and place in secure closed containers. All waste materials should be packaged, labeled, and transported in accordance with all national, state/provincial, and local requirements.

7. HANDLING AND STORAGE

RECOMMENDED STORAGE TEMPERATURE
Minimum: 4.4 C (39.9 F)
Maximum: 37.8 C (100.0 F)

SHELF LIFE: (in original, sealed containers)
1 month @ 4.4 C
1 month @ 37.8 C

(section 7 continued)

HANDLING (PERSONNEL):
Wash hands thoroughly after handling. Avoid prolonged contact with skin or eyes.

HANDLING (PHYSICAL ASPECTS):
Store in a cool dry place. Provide appropriate ventilation. Avoid extreme temperatures.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS:
Good general ventilation should be sufficient to control airborne levels. Facilities storing or using this material should be equipped with an eye wash and safety shower.

EYE / FACE PROTECTION REQUIREMENTS:
Where contact with this material is likely, chemical goggles are recommended.

SKIN PROTECTION REQUIREMENTS:
When prolonged or frequently repeated contact could occur, use protective clothing impervious to this material. Wash hands thoroughly after handling.

RESPIRATORY PROTECTION REQUIREMENTS:
Under normal use conditions, with adequate ventilation, no special respiratory protective equipment is required.

EXPOSURE GUIDELINES:

ISOPROPANOL
OSHA PEL: 400 ppm, 980 mg/m^3
OSHA TWA: 400 ppm, 980 mg/m^3
ACGIH TWA: 400 ppm
OSHA STEL: 500 ppm

AMMONIUM HYDROXIDE
OSHA PEL: 50 ppm
ACGIH TWA: 25 ppm
OSHA STEL: 35 ppm

CARBON BLACK
OSHA PEL: 3.5 mg/m^3
OSHA TWA: 3.5 mg/m^3

9. PHYSICAL AND CHEMICAL PROPERTIES

FORM .....:	Liquid Dispersion
COLOR .....:	Black
ODOR .....:	Ammonia odor
BOILING POINT .....:	100 C @ 14.7 psia
SOLUBILITY IN WATER .....:	Dispersible
SPECIFIC GRAVITY .....:	10 (Water = 1)
MELTING/FREEZING POINT ...:	0 C
PH .....:	9-11
% VOLATILES .....:	66 % @ 110 C @ 14.7 psia

10. STABILITY AND REACTIVITY

STABILITY:
This product is stable at ambient conditions.

POLYMERIZATION:
Hazardous polymerization will not occur.

DECOMPOSITION:
Decomposition may produce fumes, smoke, oxides of nitrogen, oxides of sulfur, oxides of carbon, and hydrocarbons.

11. TOXICOLOGICAL INFORMATION

No information available.

12. ECOLOGICAL INFORMATION

No information available.

13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL:
This material is a concentrated colorant. Avoid washing material into sewer systems without proper treatment and authorization by the treatment facility management. All waste materials should be packaged, labeled, and transported in accordance with all national, state/provincial, and local requirements.

14. TRANSPORTATION INFORMATION

PRODUCT LABEL.....:	Millitex Black GBB
D.O.T. SHIPPING NAME...:	Not Regulated

15. REGULATORY INFORMATION

MISCELLANEOUS INFORMATION:
This material or all of its components are listed on the Inventory of Existing Chemical Substances under the Toxic Substance Control Act (TSCA).

WHMIS Hazard Symbols:
None

Canadian Disclosure List
CARBON BLACK (1333-86-4)

EEC Symbols and Indications of Danger:
None

CERCLA Hazardous Ingredients
AMMONIUM HYDROXIDE (1336-21-6) -- RQ 1000 lb

Massachusetts Substance List
ISOPROPANOL (67-63-0)

NJ Right to Know List
ISOPROPANOL (67-63-0)

PA Hazardous Substance List
ISOPROPANOL (67-63-0)

16. OTHER INFORMATION

Reason For Issue...: new product
Prepared By.....: David Green
Approved By.....: Elaine Hare
Title.....: Environmental Manager
Approval Date.....: March 8, 1997
Supercedes Date....: New
RTN Number.....: 00000849 (Official Copy)

****

The information contained in this Material Safety Data Sheet is furnished without warranty, expressed or implied, except that it is accurate to the best knowledge of Milliken Chemical. The data on this sheet are related only to the specific material designated herein. Milliken Chemical assumes no legal responsibility for use or reliance upon these data.

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END OF MSDS

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EMERGENCY TELEPHONE: (704) 827-9651
CHEMTREC: (800) 424-9300
FOR MSDS INFORMATION: (704) 547-5600

MSDS #29

MILLIKEN & CO
VALWAY PLANT
JOHN
*
LA GRANGE GA 302400000

H M I S

HEALTH	1
FLAMMABILITY	1
REACTIVITY	0
PERSONAL PROTECTION	B

A. PRODUCT IDENTIFICATION

TRADE NAME: SANDOLUBE NVS LIQUID
CAS NUMBER: PROPRIETARY
SYNONYMS: PRODUCT HAS NO SYNONYMS
CHEMICAL FAMILY: AQUEOUS PARAFFIN EMULSION
FORMULA: PROPRIETARY
PRIMARY PRODUCT USE: DATA NOT YET AVAILABLE

B. HAZARDOUS COMPONENTS

COMPONENT	CAS NO.	%	PEL/TLV
PARAFFIN WAX	8002-74-2	5-10	2 MG/M3 FUME OSHA/ACGIH
ETHOXYLATED C12-20 ALCOHOLS	68526-94-3	1-5	NOT ESTABLISHED
ALPHA-OCTADECYL-OMEGA-HYDROXY-POLY(OXY-1,2-ETHANEDIYL); ETHOXYLATED COMPOUND	9005-00-9	1-3	NOT ESTABLISHED

C. PHYSICAL PROPERTIES

BOILING POINT ('F): >212
MELTING POINT ('F): NOT AVAILABLE
VAPOR PRESSURE (MM HG): NOT AVAILABLE
VAPOR DENSITY (AIR = 1): NOT AVAILABLE
SOLUBILITY IN WATER: MISCIBLE
SPECIFIC GRAVITY: 0.98 - 1.00
FREEZING POINT ('F): NOT AVAILABLE
PERCENT VOLATILE (BY WEIGHT): NOT AVAILABLE
EVAPORATION RATE: NOT AVAILABLE
PH (% IN WATER): 9.0 - 10.0
COEFFICIENT OF WATER/OIL DISTRIBUTION: NO DATA AVAILABLE
ODOR THRESHOLD: NO DATA AVAILABLE
APPEARANCE AND ODOR: WHITE TO CREAM COLORED LIQUID, WAXY ODOR

D. FIRE & EXPLOSION DATA

FLASH POINT ('F): >200 PMCC
FLAMMABLE LIMITS: LEL UNKNOWN UEL UNKNOWN AUTO IGNITION TEMPERATURE ('F): UNKNOWN
EXTINGUISHING MEDIA: WATER X ALCOHOL FOAM X CO2 X DRY CHEMICAL X WATER FOG SPRAY
NO EXTINGUISHING MEDIA
SPECIAL FIRE FIGHTING PROCEDURES:
NONE KNOWN
UNUSUAL FIRE AND EXPLOSION HAZARDS:
NONE KNOWN

E. REACTIVITY DATA

STABILITY: STABLE
CONDITIONS TO AVOID:
NONE
HAZARDOUS POLYMERIZATION: WILL NOT OCCUR
CONDITIONS TO AVOID:
NONE KNOWN
INCOMPATABILITY:
STRONG OXIDIZING AGENTS
HAZARDOUS DECOMPOSITION PRODUCTS:
THERMAL DECOMPOSITION MAY PRODUCE OXIDES OF CARBON.

EMERGENCY TELEPHONE: (704) 627-9651
CHEMTREC: (800) 424-9300
FOR MSDS INFORMATION: (704) 547-5600

F. PERSONAL PROTECTIVE EQUIPMENT INFORMATION

RESPIRATORY PROTECTION:
NONE REQUIRED IN NORMAL USE OF PRODUCT.

PROTECTIVE GLOVES:
BUTYL RUBBER, PVC OR NEOPRENE

EYE PROTECTION:
SAFETY GLASSES OR CHEMICAL SPLASH GOGGLES

VENTILATION:
LOCAL VENTILATION RECOMMENDED - MECHANICAL VENTILATION MAY BE USED.

OTHER PROTECTIVE EQUIPMENT:
NONE KNOWN

G. HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE: NONE ON PRODUCT
LD50 (ORAL-RAT): UNKNOWN MG/KG BODY WEIGHT
DERMAL IRRITATION-RABBIT: NOT TESTED EYE IRRITATION-RABBIT: NOT TESTED

EXPECTED ROUTE OF ENTRY: SKIN CONTACT X SKIN ABSORPTION EYE CONTACT X
INHALATION X INGESTION

EFFECTS OF EXPOSURE:
PARAFFIN: OVEREXPOSURE MAY CAUSE MILD EYE IRRITATION. ALSO MAY CAUSE MILD IRRITATION TO THE NOSE AND THROAT. OCCASIONAL SENSITIVITY REACTIONS HAVE BEEN REPORTED.
ETHOXYLATED ALCOHOL: SOME ETHOXYLATED ALCOHOLS HAVE BEEN KNOWN TO CAUSE SKIN AND EYE IRRITATION. ANY KNOWN SPECIFIC EFFECTS ARE LISTED BELOW.
ETHOXYLATED COMPOUND: SOME ETHOXYLATED COMPOUNDS HAVE BEEN KNOWN TO CAUSE SKIN AND EYE IRRITATION. ANY KNOWN SPECIFIC EFFECTS ARE LISTED BELOW.

KNOWN EFFECTS ON OTHER ILLNESSES:
NO KNOWN EFFECTS ON OTHER ILLNESSES FOR THIS PRODUCT.

LISTED CARCINOGEN: NONE X OSHA NTP IARC OTHER

H. EMERGENCY AND FIRST AID PROCEDURES

SKIN:
WASH THOROUGHLY WITH SOAP AND WATER FOR 15 MINUTES. IF SKIN IRRITATION OCCURS, SEEK MEDICAL ATTENTION.

EYES:
FLUSH IMMEDIATELY UNDER RUNNING WATER FOR FIFTEEN MINUTES. IF REDNESS OR IRRITATION OCCURS, SEEK MEDICAL ATTENTION.

INHALATION:
GET VICTIM TO FRESH AIR. GIVE ARTIFICIAL RESPIRATION OR OXYGEN IF BREATHING HAS STOPPED. GET PROMPT MEDICAL ATTENTION. DO NOT GIVE FLUIDS IF VICTIM IS UNCONSCIOUS.

INGESTION:
IF INGESTED, SEEK MEDICAL ASSISTANCE.

NOTE TO PHYSICIAN:
NONE KNOWN

I. SPILL AND DISPOSAL INFORMATION

EMERGENCY TELEPHONE: (704) 827-9651
CHEMTREC: (800) 424-9300
FOR MSDS INFORMATION: (704) 547-5600

STEPS TO BE TAKEN IN CASE OF SPILL OR LEAK:
CONTAIN SPILL. SMALL SPILLS MAY BE FLUSHED TO THE SEWER OR ABSORBED ON SUITABLE ABSORBANTS. LARGER SPILLS SHOULD BE COLLECTED AS LIQUID OR ABSORBED. CLEAN UP MAY BE ACCOMPLISHED BY FLUSHING WITH WATER IF APPROPRIATE OR REMOVE CONTAMINATED SOILS. PLACE IN APPROPRIATE CONTAINERS.

WASTE DISPOSAL INFORMATION:
SMALL QUANTITIES MAY BE TREATED IN AEROBIC WASTEWATER TREATMENT SYSTEMS. LARGER QUANTITIES MAY BE INCINERATED OR LANDFILLED AFTER SOLIDIFICATION IN PERMITTED SYSTEMS.

RCRA HAZARDOUS WASTE: NO X YES RCRA# NONE CERCLA: NO X YES RQ NONE

FOLLOW ALL LOCAL, STATE, AND FEDERAL INFORMATION

J. OTHER REGULATORY INFORMATION

TSCA: WE CERTIFY THAT ALL COMPONENTS OF THIS PRODUCT ARE REGISTERED UNDER THE REGULATIONS OF THE TOXIC SUBSTANCES CONTROL ACT.

SARA: REACTIVE HAZARD: NO X YES PRESSURE HAZARD: NO X YES FIRE HAZARD: NO X YES
IMMEDIATE/ACUTE: NO YES X DELAYED/CHRONIC: NO X YES
CONTAINS AN EXTREMELY HAZARDOUS SUBSTANCE: NO X YES

TOXIC CHEMICAL:
THIS PRODUCT DOES NOT CONTAIN ANY TOXIC CHEMICAL LISTED UNDER SECTION 313 OF THE EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT OF 1986.

CWA: THIS PRODUCT CONTAINS THE FOLLOWING PRIORITY POLLUTANTS AND THEIR CONCENTRATION:
CONTAINS NO KNOWN PRIORITY POLLUTANTS AT CONCENTRATIONS GREATER THAN 0.1%.

FDA/USDA: THIS PRODUCT IS REGISTERED WITH THE FDA/USDA NO X YES FOR USE PER SECTIONS:
NONE

CEPA PRIORITY CHEMICAL:
PRODUCT NOT YET EVALUATED

DOT: REGULATED YES NO X RQ NONE UN/NA NO. NONE

SHIPPING NAME:
SOFTNERS, FABRIC OR TEXTILE N.O.I.
(NMFC 176960 SUB 6).

HAZARD CLASSIFICATION:
NOT D.O.T. REGULATED

K. SPECIAL PRECAUTIONS

HANDLING AND STORAGE INFORMATION:
KEEP CONTAINERS CLOSED. AVOID GETTING ON SKIN OR IN EYES WHEN HANDLING PRODUCT.

OTHER PRECAUTIONS:
NONE KNOWN

L. STATE REGULATORY INFORMATION

PENNSYLVANIA: AS NOTED PER SECTION B.
MASSACHUSETTS: ANY COMPONENT OF THIS PRODUCT WHICH IS A HAZARDOUS CHEMICAL AS LISTED IN THE MASSACHUSETTS SUBSTANCE LIST IS SHOWN ABOVE IN SECTION B OF THIS MSDS. NON-HAZARDOUS COMPONENTS ARE BEING WITHHELD AS TRADE SECRET INFORMATION.

M. LABEL INFORMATION

EMERGENCY TELEPHONE: (704) 827-9651
CHEMTREC: (800) 424-9300
FOR MSDS INFORMATION: (704) 547-5600

LABEL HAZARDS:
CAUTION!
MAY CAUSE EYE AND SKIN IRRITATION.

CAUTION!
MAY CAUSE IRRITATION TO UPPER RESPIRATORY TRACT.

LABEL PRECAUTIONS:

AVOID CONTACT WITH EYES, SKIN AND CLOTHING. WASH THOROUGHLY AFTER HANDLING. WEAR PROPER PROTECTIVE EQUIPMENT.

AVOID BREATHING FUMES AND VAPORS. KEEP CONTAINER CLOSED WHEN NOT IN USE.

****

IN ACCORDANCE WITH GOOD PRACTICES OF PERSONAL CLEANLINESS AND HYGIENE, HANDLE WITH DUE CARE AND AVOID ANY UNNECESSARY CONTACT WITH THIS PRODUCT.

THIS INFORMATION IS BEING SUPPLIED TO YOU UNDER OSHA "RIGHT TO KNOW" REGULATION 29 CFR 1910.1200 AND IS OFFERED IN GOOD FAITH AS TYPICAL VALUES AND NOT AS A PRODUCT SPECIFICATION. THE INFORMATION IS BELIEVED TO BE TRUE AND ACCURATE. NO WARRANTY, EXPRESSED OR IMPLIED, REGARDING THE ACCURACY OF THIS DATA, THE HAZARDS CONNECTED WITH THE USE OF THE MATERIAL, OR THE RESULTS TO BE OBTAINED FROM THE USE THEROF. IS MADE. SANDOZ CHEMICALS ASSUMES NO RESPONSIBILITY FOR DAMAGE OR INJURY FROM THE USE OF THE PRODUCT DESCRIBED HEREIN.

SANDOZ CHEMICALS CORPORATION

****

PRODUCT IDENTIFICATION

****

PRODUCT NAME: TRITON GR-5M SURFACTANT

MSDS#: UCN0583C

DATE ISSUED: 06/23/2004

SUPERSEDES: 09/20/2000

ISSUED BY: 009053

MATERIAL SAFETY DATA SHEET

Dow THE DOW CHEMICAL COMPANY

Dow (hereinafter, and for purposes of this MSDS only, refers to The Dow Chemical Company and to Dow Chemical Canada Inc.) encourages and expects you to read and understand the entire MSDS, as there is important information throughout the document. Dow expects you to follow the precautions identified in this document unless your use conditions would necessitate other appropriate methods or actions.

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

1.1 IDENTIFICATION

Product Name TRITON(TM) GR-5M SURFACTANT

1.2 COMPANY IDENTIFICATION

The Dow Chemical Company
Midland, MI 48674

1.3 EMERGENCY TELEPHONE NUMBER

24-HOUR EMERGENCY TELEPHONE NUMBER: (989)636-4400.
Customer Information Number: 1-800-258-2436.

2. COMPOSITION INFORMATION

Component	CAS #	Amount (%W/W)
1,4-Bis(2-ethylhexyl) sodium sulfosuccinate	577-11-7	60
Isopropanol	67-63-0	20
Water	7732-18-5	20

3. HAZARDS IDENTIFICATION

3.1 EMERGENCY OVERVIEW

Appearance Transparent yellow

Physical State Liquid

Odor Pungent

Hazards of product
WARNING!
FLAMMABLE.
CAUSES EYE AND SKIN IRRITATION.

ASPIRATION MAY CAUSE LUNG DAMAGE.
MAY CAUSE DIZZINESS AND DROWSINESS.

3.2 POTENTIAL HEALTH EFFECTS
Effects of Single Acute Overexposure

Inhalation High concentrations of vapor or mist cause irritation of the respiratory tract, experienced as nasal discomfort and discharge, with chest pain and coughing. High concentrations of vapor may cause central nervous system depression, with weakness, drowsiness, and loss of consciousness. Headache may occur.

Eye Contact Causes moderate to severe irritation, experienced as discomfort or pain, excess blinking and tear production, with marked excess redness and swelling of the conjunctiva.

Skin Contact Causes irritation with discomfort, local redness, and possible swelling.

Skin Absorption No evidence of adverse health effects from available information.

Swallowing Moderately toxic. May cause abdominal discomfort, nausea, vomiting and diarrhea. Aspiration into the lungs may occur during ingestion or vomiting, resulting in lung injury.

Chronic, Prolonged or Repeated Overexposure

Effects of Repeated Overexposure Repeated skin contact may cause a dermatitis.

Other Effects of Overexposure
None currently known.

Medical Conditions Aggravated by Exposure
A knowledge of the available toxicology information and of the physical and chemical properties of the material suggests that overexposure is unlikely to aggravate existing medical conditions.

See Section 11 for toxicological information and additional information about potential health effects.

3.3 POTENTIAL ENVIRONMENTAL EFFECTS
See Section 12 for Ecological Information.

4. FIRST AID PROCEDURES

4.1 INHALATION
Remove to fresh air. Give artificial respiration if not breathing. If breathing is difficult, oxygen may be given by qualified personnel. Obtain medical attention.

4.2 EYE CONTACT
Immediately flush eyes with water and continue washing for several minutes. Remove contact lenses, if worn. Obtain medical attention

4.3 SKIN CONTACT
Remove contaminated clothing. Wash skin with soap and water. If irritation persists or if contact has been prolonged, obtain medical attention.

4.4 SWALLOWING
If patient is fully conscious, give two glasses of water. DO NOT INDUCE VOMITING. Obtain medical attention.

4.5 NOTES TO PHYSICIAN
There is no specific antidote. Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient. Any material aspirated during vomiting may cause lung injury. Therefore, emesis should not be induced mechanically or pharmacologically. If it is considered

necessary to evacuate the stomach contents, this should be done by means least likely to cause aspiration (e.g. gastric lavage after endotracheal intubation).

5. FIRE FIGHTING MEASURES

5.1 FLAMMABLE PROPERTIES - REFER TO SECTION 9, PHYSICAL AND CHEMICAL PROPERTIES

5.2 EXTINGUISHING MEDIA
Extinguish fires with water spray or apply alcohol-type or all-purpose-type foam by manufacturer's recommended techniques for large fires. Use carbon dioxide or dry chemical media for small fires.

5.3 FIRE FIGHTING PROCEDURES
Use water spray to cool fire-exposed containers and structures. Do not direct a solid stream of water or foam into hot, burning pools; this may cause frothing and increase fire intensity. Use water spray to disperse vapors; re-ignition is possible.

5.4 SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS
Use self-contained breathing apparatus and protective clothing.

5.5 UNUSUAL FIRE AND EXPLOSION HAZARDS
Vapors form from this product and may travel or be moved by air currents and ignited by pilot lights, other flames, smoking, sparks, heaters, electrical equipment, static discharges or other ignition sources at locations distant from product handling point. Vapors from this material may settle in low or confined areas or travel a long distance to an ignition source and flash back explosively.

Static ignition hazard can result from handling and use. Electrically bond nd ground all containers, personnel and equipment before transfer or use of aterial. Special precautions may be necessary to dissipate static electricity for non-conductive containers. Use proper bonding and grounding during product transfer as described in National Fire Protection Association Document NFPA 77.

Avoid splash filling of containers when handling this flammable liquid because static electricity may be generated. Use proper bonding and grounding during product transfer as described in National Fire Protection Association Document NFPA 77.

During a fire, oxides of sulfur may be produced.
Avoid accumulation of water. Product may be carried across water surface spreading fire or contacting an ignition source.

5.6 HAZARDOUS COMBUSTION PRODUCTS
Burning can produce the following combustion products: Carbon monoxide and/or carbon dioxide. Oxides of sulfur. Carbon monoxide is highly toxic if inhaled; carbon dioxide in sufficient concentrations can act as an asphyxiant. Acute overexposure to the products of combustion may result in irritation of the respiratory tract.

6. ACCIDENTAL RELEASE MEASURES

Steps to be Taken if Material is Released or Spilled:
Eliminate sources of ignition. Contain spills immediately with inert materials (e.g., sand, earth). Transfer liquids and solid diking material to uitable containers for recovery or disposal. To avoid gelling and foaming roblems, do not use water to flush away spills.

Personal Precautions:
Wear eye and skin protection. Floor may be slippery; use care to avoid falling. See Section 8.2 - Personal Protection.

Environmental Precautions:
Like most surfactants, this product is expected to be relatively toxic to fish. Avoid discharge to natural waters.

7. HANDLING AND STORAGE

7.1 HANDLING

General Handling
Keep away from heat, sparks and flame.
Avoid contact with eyes, skin, and clothing.
Do not swallow.
Keep container closed.
Use with adequate ventilation.
Vapor forms from this product and may travel or be moved by air currents and ignited by pilot lights, other flames, smoking, sparks, heaters, electrical equipment, static discharges or other ignition sources at locations distant from product handling point and may flash back explosively.
Wash thoroughly after handling.

FOR INDUSTRY USE ONLY.

Ventilation
Provide general and/or local exhaust ventilation to control airborne levels below the exposure guidelines. Lethal concentrations may exist in areas with poor ventilation.

Other Precautions
Surfactants can cause foaming problems in biological wastewater treatment plants and other high shear operations. Vapor may settle in low or confined areas, or travel a long distance to an ignition source and flash back explosively.

7.2 STORAGE

No specific requirements.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

8.1 EXPOSURE LIMITS

Component	Exposure Limits	Skin. Form
Isopropanol	200 ppm TWA8 ACGIH	
	400 ppm STEL ACGIH	
	400 ppm TWA8 OSHA	

In the Exposure Limits Chart above, if there is no specific qualifier (i. e., Aerosol) listed in the Form Column for a particular limit, the listed limit includes all airborne forms of the substance that can be inhaled.
A "Yes" in the Skin Column indicates a potential significant contribution to overall exposure by the cutaneous (skin) route, including mucous membranes and the eyes, either by contact with vapors or by direct skin contact with the substance. A "Blank" in the Skin Column indicates that exposure by the cutaneous (skin) route is not a potential significant contributor to overall exposure.

8.2 PERSONAL PROTECTION

Respiratory Protection:
Atmospheric levels should be maintained below the exposure guideline. When respiratory protection is required, use an approved air-purifying or positive-pressure supplied-air respirator depending on the potential airborne concentration.
For emergency and other conditions where the exposure guideline may be exceeded, use an approved positive-pressure self-contained breathing apparatus or positive-pressure airline with auxiliary self-contained air supply.
In confined or poorly ventilated areas, use an approved self-contained breathing apparatus or positive pressure airline with auxiliary self

contained air supply.

Ventilation:
Provide general and/or local exhaust ventilation to control airborne levels below the exposure guidelines.
Lethal concentrations may exist in areas with poor ventilation.

Eye Protection:
Monogoggles

Protective Gloves: Nitrile (NBR)

Other Protective Equipment:	Eye Bath, Safety Shower Full protective clothing

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Liquid
Appearance:	Transparent yellow
Odor:	Pungent

Flash Point -Closed Cup: 22 C 72 F Tag Closed Cup ASTM D 56
Flash Point -Open Cup: 35 C 96 F Tag Open Cup ASTM D 1310

Flammable Limits In Air:

Lower	2.0 %(V)	(LFL of most volatile ingredient)
Upper	12.7 %(V)	(UFL of most volatile ingredient)

Autoignition Temperature:	Not currently available.
Vapor Pressure:	30.4 mmHg 20 C
Boiling Point (760 mmHg):	87 C 188 F
Vapor Density (air = 1):	2.19
Specific Gravity (H2O = 1):	1.028
Freezing Point:	-48 C -54 F
Melting Point:	Not applicable.
Solubility in Water (by weight):	100
pH:	5.8
Evaporation Rate (Butyl Acetate = 1):	2.68

10. STABILITY AND REACTIVITY

10.1 STABILITY/INSTABILITY Stable.

Conditions to Avoid:
Prolonged excessive heat may cause product decomposition.

Incompatible Materials:
Contact with strong oxidizing and/or reducing agents may result in rapid energy release. Avoid strong bases at high temperatures, strong acids, and materials reactive with hydroxyl compounds.

10.2 HAZARDOUS POLYMERIZATION Will not occur.

11. TOXICOLOGICAL INFORMATION

SIGNIFICANT DATA WITH POSSIBLE RELEVANCE TO HUMANS
In studies with rabbits sustained occluded skin contact of the undiluted surfactant can cause inflammatory changes in the lung.

The following is a summary of TSCA Section 4 Test Rule results: Large doses (>800 mg/kg/day) of isopropanol given orally to pregnant rats during the critical period of gestation produced slight decreases in fetal weight. These doses also caused evidence of toxicity in the mothers. Oral doses as high as 480 mg/kg/day caused evidence of toxicity in pregnant rabbits but did not produce evidence of embryo or fetal toxicity. Isopropanol did not produce an increased incidence of malformations (teratogenicity) in either species. An

indication of reduced mating performance in 2nd generation male rats was noted at oral doses of 1000 mg/kg/day in a two generation reproductive study. Increased neonatal mortality was also seen at doses of 500 mg/kg/day and greater in this study. No evidence of neurotoxic effects was observed in studies specifically designed to assess neurobehaviorial functions in neonatal rats after oral dosing of mothers during gestation and lactation. In an acute vapor inhalation study, high concentrations of isopropanol (1500 ppm and greater) caused a spectrum of transient effects indicative of narcosis. In repeated inhalation exposure studies, high vapor concentrations (5000 ppm) produced an increase in motor activity in rats first noted after 4 weeks of exposure. The effect was reversible completely resolving within 14 days after 13 weeks of exposure. No evidence of damage to nerve tissue was seen in this study. Lifetime exposure of laboratory animals to high concentrations of isopropanol vapor (greater than 1500 ppm) exacerbated chronic progressive nephropathy commonly seen in aged animals. The relevance of this finding to human health hazard evaluation is unknown. No evidence suggestive of carcinogenic activity was noted in chronic vapor inhalation studies with isopropanol in rats and mice.

12. ECOLOGICAL INFORMATION

12.1 ENVIRONMENTAL FATE
Information may be available, call Dow.

12.2 ECOTOXICITY
Information may be available, call Dow.

12.3 FURTHER INFORMATION
None.

13. DISPOSAL CONSIDERATIONS

13.1 DISPOSAL
DO NOT DUMP INTO ANY SEWERS, ON THE GROUND, OR INTO ANY BODY OF WATER. All disposal practices must be in compliance with all Federal, State/ Provincial and local laws and regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator. DOW HAS NO CONTROL OVER THE MANAGEMENT PRACTICES OR MANUFACTURING PROCESSES OF PARTIES HANDLING OR USING THIS MATERIAL. THE INFORMATION PRESENTED HERE PERTAINS ONLY TO THE PRODUCT AS SHIPPED IN ITS INTENDED CONDITION AS DESCRIBED IN MSDS SECTION 2 (Composition/ Information on Ingredients). FOR UNUSED & UNCONTAMINATED PRODUCT, the preferred options include sending to a licensed, permitted: Incinerator or other thermal destruction device. Waste water treatment system. As a service to its customers, Dow can provide names of information resources to help identify waste management companies and other facilities which recycle, reprocess or manage chemicals or plastics, and that manage used drums. Telephone Dow's Customer Information Group at 1-800-258-2436 or 1-989-832-1556 (U.S.), or 1-800-331-6451 (Canada) for further details .

14. TRANSPORT INFORMATION

14.1 U.S. D.O.T.
NON-BULK

Proper Shipping Name	: COMPOUND, CLEANING LIQUID
Technical Name	: CONTAINS ISOPROPANOL
Hazard Class	: 3
ID Number	: NA1993
Packing Group	: PG II

BULK

Proper Shipping Name	: COMPOUND, CLEANING LIQUID
Technical Name	: CONTAINS ISOPROPANOL
Hazard Class	: 3
ID Number	: NA 1993
Packing Group	: PG II

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

15. REGULATORY INFORMATION

15.1 FEDERAL/NATIONAL

COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT OF 1980 (CERCLA) SECTION 103

This product contains the following substances which are subject to CERCLA Section 103 reporting requirements and which are listed in 40 CFR 302.4.

None.

SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 TITLE III (EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT OF 1986) SECTION 313

This product contains the following substances which are subject to SARA Section 302 reporting requirements and which are listed in 40 CFR 302.4.

None.

SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 TITLE III (EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT OF 1986) SECTION 313

This product contains the following substances which are subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act 1986 and which are listed in 40 CFR Part 372. This product does not contain toxic chemicals at levels which require reporting under the statute.

SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 TITLE III (EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT OF 1986) SECTIONS 311 AND 312

Delayed (Chronic) Health Hazard	: Yes
Fire Hazard	: Yes
Immediate (Acute) Health Hazard	: Yes
Reactive Hazard	: No
Sudden Release of Pressure Hazard	: No

Toxic SUBSTANCES CONTROL ACT (TSCA)

All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements under 40 CFR 720.30.

EUROPEAN INVENTORY OF EXISTING COMMERCIAL CHEMICAL SUBSTANCES (EINECS)

The components of this product are on the EINECS inventory or are exempt from EINECS inventory requirements.

CEPA - DOMESTIC SUBSTANCES LIST (DSL)

All substances contained in this product are listed on the Canadian Domestic Substances List (DSL) or are not required to be listed.

15.2 STATE/LOCAL

PENNSYLVANIA (WORKER AND COMMUNITY RIGHT-TO-KNOW ACT)

The following product components are cited in the Pennsylvania Hazardous Substances List, the Pennsylvania Special Hazardous Substance List, and/or the Pennsylvania Environmental Hazardous Substance list, and are present at levels which require reporting.

Component	CAS #	Amount
Isopropanol	67-63-0	20.0000%

CALIFORNIA PROPOSITION 65 (SAFE DRINKING WATER AND Toxic ENFORCEMENT ACT OF 1986)

This product contains no listed substances known to the State of California to cause cancer, birth defects or other reproductive harm, at levels which would require a warning under the statute.

CALIFORNIA SCAQMD RULE 443.1 (SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT RULE 443.1, LABELING OF MATERIALS CONTAINING ORGANIC SOLVENTS)

VOC: Vapor pressure 30.4 mmHg @ 20 C
205.24 g/l
258.36 g/l Less exempted compounds
This section provides selected regulatory information on this product including its components. This is not intended to include all regulations. It is the responsibility of the user to know and comply with all applicable rules, regulations and laws relating to the product being used.

16. OTHER INFORMATION

16.1 ADDITIONAL INFORMATION
Additional information on this product may be obtained by calling Dow's Customer Information Group at 1-800-258-2436 (U.S.) or 1-800-331-6451 (Canada).

16.2 HAZARD RATING SYSTEM
NFPA ratings for this product are: H - 2 F - 3 R-0
These ratings are part of a specific hazard communication program and should be disregarded where individuals are not trained in the use of this hazard rating system. You should be familiar with the hazard communication programs applicable to your workplace.

16.3 RECOMMENDED USES AND RESTRICTIONS
FOR INDUSTRY USE ONLY

16.4 REVISION
Version: 4.1

Most recent revision(s) are noted by the bold, double bars in left-hand margin throughout this document.

16.5 LEGEND

Bacterial/NA	Non Acclimated Bacteria
F	Fire
H	Health
IHG	Industrial Hygiene Guideline
N/A	Not available
NFPA	National Fire Protection Association
O	Oxidizer
R	Reactivity
TS	Trade secret
VOLNOL	VolumeNolume
W	Water Reactive
W/W	Weight/Weight

---------- FOR ADDITIONAL INFORMATION ----------
CONTACT: MSDS COORDINATOR UNIVAR USA INC.
DURING BUSINESS HOURS, PACIFIC TIME (425)889-3400
---------- NOTICE ----------

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* * * E N D O F M S D S * * *

MATERIAL SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name	WRL E1137
Company Identification	Noveon, Inc. 9911 Brecksville Rd. Cleveland, OH 44141-3247 United States of America
Telephone	(800) 331-1144 / (216) 447-5000
Chemtrec (24 Hour)	(800) 424-9300
Preparer	Health, Safety, and Environmental Department
Product Description	Aqueous polymer dispersions for textile applications.

2. COMPOSITION, INFORMATION ON INGREDIENTS

--Ingredient--	-CAS Number-	---%---
Water	0007732-18-5	51
Polymer/Solids	Proprietary	49
Formaldehyde	0000050-00-0	< 0.040

Notes:
Amounts specified are typical and do not represent a specification.

3. HAZARDS IDENTIFICATION

Acute Health Effects
Repeated or prolonged skin contact may cause irritation.
Vapors or direct eye contact may cause irritation.
Ingestion may cause irritation.
Inhalation may cause irritation of the respiratory tract and mucous membranes.
FORMALDEHYDE: Vapors may cause eye, nose, and throat irritation at levels below the STEL for some people. These symptoms are more noticeable as airborne concentrations increase.
Chronic Health Effects
FORMALDEHYDE: Prolonged,excessive, or repeated exposure to formaldehyde or solutions containing formaldehyde may cause an allergic skin reaction and/or respiratory disorders (sensitization).
Signs/Symptoms of Exposure

Irritation.
Routes of Exposure/Entry
Eyes, skin contact, inhalation, ingestion.
Target Organs
Eyes, respiratory tract, skin.
Medical Conditions Aggravated by Exposure
Pre-existing skin problems may be aggravated by prolonged or repeated contact.
Persons with sensitive airways (e.g., asthmatics) may react to vapors.
Carcinogenic Status
FORMALDEHYDE: IARC - Group 2A; NTP - Anticipated human carcinogen; OSHA - Regulated as a carcinogen; ACGIH - A2.

4. FIRST AID MEASURES

If irritation or other symptoms (as noted above) occur or persist from any route of exposure, remove the affected individual from the area: see a physician/get medical attention.
Eye Contact
Immediately flush eyes with plenty of clean water for an extended time, not less than five (5) minutes. Flush longer if there is any indication of residual chemical in the eye.
Ensure adequate flushing of the eyes by separating the eyelids with fingers and roll eyes in a circular motion.
Skin Contact
Wash the affected area thoroughly with plenty of water and soap.
Inhalation
If affected, remove to fresh air.
If not breathing, give artificial respiration.
See a physician.
Ingestion
Treat symptomatically.
See a physician.

5. FIRE FIGHTING MEASURES

NFPA Flammability Class	N/A
Flash Range	Not Applicable
Explosive Range	Not Applicable

Fire and Explosive Properties
This product is not known to present any fire hazard.
Extinguishing Media
Being an aqueous system, product is not a fire hazard, as supplied. After water is evaporated, dry solids could burn. Water spray, ABC dry chemical and protein type air foams are effective. Carbon dioxide may be ineffective on larger fires due to a lack of cooling capacity, which may result in reignition.

Fire Fighting Instructions
Wear self-contained breathing apparatus (SCBA) equipped with a full facepiece and operated in a pressure-demand mode (or other positive pressure mode) and approved protective clothing. Personnel without suitable respiratory protection must leave the area to prevent significant exposure to hazardous gases from combustion, burning or decomposition. In an enclosed or poorly ventilated area, wear SCBA during cleanup immediately after a fire as well as during the attack phase of firefighting operations.
Unusual Fire/Explosion Hazards
None known for the product as delivered (water solution).
Irritating and toxic substances will be emitted upon combustion, burning or decomposition of the dry solids.
Closed container may rupture (due to build up in pressure) when exposed to extreme heat.

6. ACCIDENTAL RELEASE MEASURES

Containment Techniques
Contain spill.
If spilled in an enclosed area, ventilate.
Clean-Up Techniques
Wear proper personal protective clothing and equipment.
Do not flush liquid into public sewer, water systems or surface waters.
Recover as much as possible for reuse.
Soak up large spill residue and small spills with an inert absorbent.
Place into labeled, closed container; store in safe location to await disposal.
Wash the spill area with soap and water.
Change contaminated clothing and launder before reuse.
CAUTION: Spilled liquid and dried film are slippery. Use care to avoid falls.

7. HANDLING AND STORAGE

Handling
Avoid eye contact.
Avoid repeated or prolonged skin contact.
Avoid inhalation of aerosol, mist, spray, fume or vapor.
Avoid drinking, tasting, swallowing or ingesting this product.
Wash thoroughly after handling this product. Always wash up before eating, smoking or using the facilities.
Provide eyewash fountains and safety showers in the work area.
Use under well-ventilated conditions.
Storage
Do not store in open, unlabeled or mislabeled containers.
Keep container closed when not in use.
Do not reuse empty container without commercial cleaning or

reconditioning.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Limits

	--ACGIH-TWA---	-ACGIH-STEL---	---OSHA-TWA---	--OSHA-STEL---
Water	N/E	N/E	N/E	N/E
Polymer/Solids	N/E	N/E	N/E	N/E
Formaldehyde	N/E	0.30 PPM C	0.75 PPM	2.00 PPM

Engineering Controls
Always provide effective general and, when necessary, local exhaust ventilation to draw spray, aerosol, fume, mist and vapor away from workers to prevent routine inhalation.
Ventilation must be adequate to maintain the ambient workplace atmosphere below the exposure limit(s) outlined in the MSDS.
Ventilation guidelines/techniques may be found in publications such as Industrial Ventilation: American Conference of Governmental Industrial Hygienists, 1330 Kemper Meadow Drive, Cincinnati, OH, 45240-1634, USA.
Eye/Face Protection
Wear eye protection.
Skin Protection
Wear protective gloves.
Respiratory Protection
Wear a respirator approved by NIOSH/MSHA (e.g., an organic vapor respirator, a full face air purifying respirator for organic vapors, or a self-contained breathing apparatus) whenever exposure to aerosol, mist, spray, fume or vapor exceed the exposure limit(s) of any chemical substance listed in this MSDS.
Use respirator in accordance with manufacturer's use limitations and OSHA standard 1910.134 (29CFR).

9. PHYSICAL AND CHEMICAL PROPERTIES

Form	Viscous liquid
Appearance/Color	Opaque, white
Odor	Acrylate
Solubility (in water)	Dispersible
pH Value	6.0-8.0
Boiling Range	> 212.F (100.C)
Vapor Pressure (mmHg)	< 17.5 @ 20.C (68.F)
Melting Point	Not Applicable

Evaporation Rate	Slower than n-Butyl Acetate
Vapor Density	Same as water
Partition Coefficient	Not Available
% Volatile Weight	46%-51%
Specific Gravity	0.96-1.08
VOC	<0.5%

10. STABILITY AND REACTIVITY

Stability	This product is stable
Hazardous Polymerization	Hazardous polymerization will not occur

Conditions to Avoid
Do not freeze.
Incompatibility with other materials
No specific incompatibilities. Materials which are not compatible with water will not be compatible with this product.
Substances that are not compatible with ordinary organic compounds (such as strong oxidizers) will not be compatible with this product.
Contamination with strong acids and bases may coagulate latex.
Hazardous Decomposition Products
After water is evaporated, decomposition or combustion of the dry solids may generate irritating vapors, CO, CO2, oxides of nitrogen, monomers and hydrocarbons, and oxides of sulfur.

11. TOXICOLOGICAL INFORMATION

FORMALDEHYDE: Inhalation of formaldehyde at concentrations above 5 ppm for 6 hours a day for 2 years caused cancer in laboratory animals.

12. ECOLOGICAL INFORMATION

No ecological testing has been conducted on this product.

13. DISPOSAL CONSIDERATIONS

Incinerate waste product when in liquid form (i.e., as supplied) in a properly permitted (approved) incineration facility in accordance with federal, state and local regulations.
Liquids cannot be disposed of in a landfill.
Liquid product generally requires some pre-disposal treatment to separate the liquid from the polymeric portion. Typically, this is done by coagulating the polymer and removing the liquid. The liquid portion may be discharged to an industrial or public treatment works with approval of appropriate permitting authorities.
Solid products can be sent to an approved landfill, or preferably incinerated.

EPA CERCLA RQ.

--Ingredient--	--lbs-	--kg---
Formaldehyde	100	45.4

14. TRANSPORTATION INFORMATION

UN Number	N/A
UN Pack Group	N/A
UN Class	N/A
ICAO/IATA Class	N/A
IMDG Class	N/A
ADR/RID Class	N/A

Notes:
This product is NOT REGULATED for domestic and international transportation.

U.S. DOT RQ.

--Ingredient--	--lbs-	--kg---
Formaldehyde	100	45.4

15. REGULATORY INFORMATION

--SARA Title III Section 313----------
This product does not contain any substance(s) subject to the reporting requirements (i.e., at or above de minimus quantities) of Section 313 of Title III of the Superfund Amendments and Reauthorization Act (SARA) 40 CFR 372.

--SARA Title III Section 312 Hazard Category (40 CFR 311/312)--

Acute Health:	No	Release of Pressure:	No
Chronic Health:	No	Reactive:	No
Fire:	No		

--PROP 65 (Carcinogen)----------
WARNING: This product contains a chemical known to the state of California to cause cancer.

Formaldehyde

--Clean Air Act (CAA)----------
When processed this product may give off a CAA substance (Section 112). The amount given off varies and is dependent upon process conditions (i.e., use, curing, heating). Listed below are possible CAA substances in this product:

Formaldehyde

Chemical identity of some or all components present is confidential business information (trade secret) and is being withheld as permitted

by 29CFR1910.1200 (i).
US (Federal) Regulations
TSCA: All components of this product are either listed on the U.S. Toxic Substances Control Act (TSCA) inventory of chemicals or are otherwise compliant with TSCA regulations.
International Regulations
Canadian DSL: All components in this product are on the Canadian Domestic Substances List (DSL) or are exempt from listing.
Canadian Ingredient Disclosure List (WHMIS): Not applicable.
Canadian WHMIS: This product is NOT controlled under the Canadian Workplace Hazardous Materials Information System (WHMIS).

16. OTHER INFORMATION

HMIS Rating (H-F-R-PPI) 1-0-0-B
NFPA Rating (H-F-R) 1-0-0
KEY: 0=Insignificant; 1=Slight; 2=Moderate; 3=High; 4=Extreme.
Hazardous Materials Identification System (HMIS), National Paint and Coatings Assn. rating applies to product "as packaged" (i.e., ambient temperature).
National Fire Protection Association (NFPA) rating identifies the severity of hazards of material during a fire emergency (i.e., "on fire").
Other Information
FORMALDEHYDE: Workplace exposure to formaldehyde is regulated by OSHA 1910.1048 (CFR Title 29). This regulation requires labeling if the product is capable under its normally expected conditions of handling, processing, and use of releasing enough formaldehyde to result in airborne concentrations above 0.5 ppm. Laboratory experiments simulating mixing or compounding of emulsions show that the airborne concentration of formaldehyde is not likely to exceed 0.1 ppm (0.1 mg/kg) when residual formaldehyde is <0.009% (<90 ppm or <90 mg/kg) in the wet emulsion. When the concentration in the wet emulsion exceeds ~800 ppm (~800 mg/kg), the airborne concentration of formaldehyde could exceed 0.5 ppm (0.5 mg/kg). Purchasers of this product should not solely rely on Noveon data, but should do sufficient in-plant monitoring of formaldehyde levels to assure compliance of their operations.
Legend:

*:	A Trademark of Noveon, Inc.
ACGIH:	American Conference of Governmental Industrial Hygienists
A1:	Confirmed human carcinogen
A2:	Suspected human carcinogen
A3:	Animal carcinogen
CAS No:	Chemical Abstract Service Registry Number
IARC:	International Agency for Research on Cancer
Group1:	Carcinogenic to humans
Group2A:	Probably carcinogenic to humans
Group2B:	Possibly carcinogenic to humans

Group3: Unclassifiable as a carcinogen to humans
MSHA: Mine Safety and Health Administration
NIOSH: National Institute for Occupational Safety and Health
NTP: National Toxicology Program
N/A: Not Applicable
N/E: None Established
OSHA: Occupational Safety and Health Administration
PEL: Permissible Exposure Limit
PNOC: Particulates Not Otherwise Classified
RTK: Right To Know
STEL: Short Term Exposure Limit (15 minute Time Weighted Average)
TLV: Threshold Limit Value
C: Ceiling limit
S: Skin notation refers to the potential significant contribution to the overall exposure by the cutaneous route including mucous membranes and the eyes and by direct skin contact with the substance
WEEL: Workplace Environmental Exposure Level
WHMIS: Canadian Workplace Hazardous Materials Information System

Users Responsibility/Disclaimer of Liability

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This bulletin cannot cover all possible situations which the user may experience during processing. Each aspect of your operation should be examined to determine if, or where, additional precautions may be necessary. All health and safety information contained in this bulletin should be provided to your employees or customers. It is your responsibility to develop appropriate work practice guidelines and employee instructional programs for your operation.

Appendix

G

Part 70 Operating Permit

Permit Number: **2281-285-0040-V-02-0** **Effective Date:** **June 1, 2007**

Facility Name: **Milliken and Company - Hillside Plant**

Facility Address: 1300 Brownwood Avenue
LaGrange, Georgia 30240 (Troup County)

Mailing Address: P.O. Box 1926, Mailstop M-482
Spartanburg, South Carolina 29304

Parent/Holding Company: Milliken & Company

Facility AIRS Number: 04-13-285-00040

In accordance with the provisions of the Georgia Air Quality Act, O.C.G.A. Section 12-9-1, et seq and the Georgia Rules for Air Quality Control, Chapter 391-3-1, adopted pursuant to and in effect under the Act, the Permittee described above is issued a Part 70 Permit for:

The operation of a facility that manufactures yarn, tufted carpet, and non-woven material.

This Permit is conditioned upon compliance with all provisions of The Georgia Air Quality Act, O.C.G.A. Section 12-9-1, et seq, the Rules, Chapter 391-3-1, adopted and in effect under that Act, or any other condition of this Permit. Unless modified or revoked, this Permit expires five years after the effective date indicated above.

This Permit may be subject to revocation, suspension, modification or amendment by the Director for cause including evidence of noncompliance with any of the above, for any misrepresentation made in Title V Application No. 16262, signed on June 20, 2005, any other applications upon which this Permit is based, supporting data entered therein or attached thereto, or any subsequent submittal of supporting data, or for any alterations affecting the emissions from this source.

This Permit is further subject to and conditioned upon the terms, conditions, limitations, standards, or schedules contained in or specified on the attached **39** pages, which pages are a part of this Permit.

_____

Director
Environmental Protection Division

Table of Contents

PART 1.0 FACILITY DESCRIPTION

1.1 Site Determination

The Milliken & Company Hillside Plant (AFS No. 285-00040), Milliken & Company Hillside Coating Plant (AFS No.285-00082) and Milliken & Company Valway Plant (AFS No. 285-00045) comprise the same Title V site because the plants are located on contiguous property, operate under common control, and are a major source of HAPs. This Title V Permit will cover only the Milliken & Company Hillside Plant (AFS No. 285-00040).

The Milliken & Company Hillside Coating Plant (AFS No. 285-00082) does not comprise the same Title I site with the Milliken & Company Hillside Plant (AFS No. 285-00040) and Milliken & Company Valway Plant (AFS No. 285-00045) because the Hillside Coating Plant does not have the same two digit SIC code and it is not classified as a support facility.

1.2 Previous and/or Other Names

None identified.

1.3 Overall Facility Process Description

The Milliken & Company Hillside Plant (Milliken) receives bales of nylon fibers, which may be dyed with acid dyes in one of two continuous dye ranges (HDR1 and HDR2). The fiber is then converted to yarn in Yarn Spinning Process Group PG01. After spinning, the yarn is heatset in Superba heatset machines to add memory to the yarn. Upon completion of the heatsetting, the yarn is put into creels or warped onto beams and is ready for tufting. The yarn is then tufted (sewn) into a substrate material for further processing at another Milliken Plant.

One 70 MMBtu/hr boiler (HB01), fueled primarily by natural gas with residual fuel oil as a backup, generates any steam required.

PART 2.0 REQUIREMENTS PERTAINING TO THE ENTIRE FACILITY

2.1 Facility Wide Emission Caps and Operating Limits

None applicable.

2.2 Facility Wide Federal Rule Standards

None applicable.

2.3 Facility Wide SIP Rule Standards

None applicable.

2.4 Facility Wide Standards Not Covered by a Federal or SIP Rule and Not Instituted as an Emission Cap or Operating Limit

None applicable.

PART 3.0 REQUIREMENTS FOR EMISSION UNITS

Note: Except where an applicable requirement specifically states otherwise, the averaging times of any of the Emissions Limitations or Standards included in this permit are tied to or based on the run time(s) specified for the applicable reference test method(s) or procedures required for demonstrating compliance.

3.1 Emission Units

Emission Units		Specific Limitations/Requirements*		Air Pollution Control Devices	
ID No.	Description	Applicable Requirements/Standards	Corresponding Permit Conditions	ID No.	Description
HB01	Cleaver Brooks boiler rated at 70 MMBtu/hr	391-3-1-.02(2)(d) 391-3-1-.02(2)(g) 40CFR63 Subpart DDDDD**	3.2.1, 3.2.3, 3.3.5, 3.4.4, 3.4.5, 3.4.6, 5.2.1, 5.2.2, 6.2.1, 6.2.2, 6.2.3	None	NA
HDR1	Process Group -Continuous Dye Range	391-3-1-.02(2)(e) 391-3-1-.02(2)(b) 40CFR63 Subpart OOOO	3.2.2, 3.3.1, 3.3.2, 3.3.3, 3.3.4, 3.4.1, 3.4.3, 4.2.1, 4.2.2, 6.2.4, 6.2.5, 6.2.6, 6.2.7, 6.2.8, 6.2.9, 6.2.10, 6.2.11	None	NA
HDR2	Process Group -Continuous Dye Range	391-3-1-.02(2)(e) 391-3-1-.02(2)(b) 40CFR63 Subpart OOOO	Same as HDR1	None	NA
PG01	Process Group - Yarn Spinning - includes emission units: HCD1 - Carding process HDW1 - Drawing process HSP1 - Spinning process HWD1 - Winding process HTW1 - Twisting process	391-3-1-.02(2)(fff) 391-3-1-.02(2)(b)	3.4.2, 3.4.3	None	NA

* Generally applicable requirements contained in this permit may also apply to emission units listed above.
** Compliance required no later than September 13, 2007, unless otherwise amended, if facility retains HAPs major source status

3.2 Equipment Emission Caps and Operating Limits

3.2.1 The firing of fuel oil shall be limited such that the total consumption of fuel oil during any 13 consecutive periods does not cause emissions of SO_2 to equal or exceed 249 tons from Boiler HB01. For purposes of this condition, a period is defined as 4 calendar weeks.
[PSD Avoidance - 40 CFR 52.21]

3.2.2 The Permittee shall not discharge, or cause the discharge, into the atmosphere, from HDR1 and HDR2, combined, VOC emissions in amount equal to or exceeding 49 tons during any 13 consecutive periods. For purposes of this condition, a period is defined as 4 calendar weeks.
[PSD Avoidance - 40 CFR 52.21]

3.2.3 The Permittee shall fire no fuel in Boiler HB01 other than natural gas, propane, or residual oil.
[PSD Avoidance - 40 CFR 52.21]

3.3 Equipment Federal Rule Standards

3.3.1 The Permittee shall comply with all applicable provisions of the National Emission Standard for Hazardous Air Pollutants (NESHAP) as found in 40 CFR Part 63 Subpart A – "General Provisions."
[40 CFR 63 Subpart A]

3.3.2 The Permittee shall comply with all applicable provisions of 40 CFR 63, Subpart OOOO, "National Emission Standards for Hazardous Air Pollutants for Printing, Coating, and Dyeing of Fabrics and other Textiles", in the operation of the affected source. The affected source includes Process Groups HDR1 and HDR2 and is defined in 40 CFR 63.4282(d).
[40 CFR 63, Subpart OOOO]

3.3.3 The Permittee shall limit organic HAP emissions to the atmosphere from the affected source to no more than 0.016 kilograms (kg) of organic HAP per kg of dyeing materials applied. The Permittee shall demonstrate compliance with the above limit by applying one or more of the following compliance options, as chosen by the Permittee and as limited by 40 CFR 63.4291(c):

a. *Compliant materials option.* The Permittee shall limit at all times the mass fraction of organic HAP, as purchased, of each dyeing material applied in each dyeing operation, including Process Groups HDR1 and HDR2, to no more than 0.016 kg of organic HAP per kg of dyeing material (that is, to a mass fraction of organic HAP of no more than 0.016). "Dyeing operation" and "dyeing materials" are defined in 40CFR63.4371.
[40 CFR 63.4290, 40 CFR 63.4291, 40 CFR 63.4300(a)(1),40 CFR 63.4321(c), 40 CFR 63.4322, and Table 1 of 40 CFR 63 Subpart OOOO]

b. *Emission rate without add-on controls option.* The Permittee shall limit, based on the dyeing materials applied, the organic HAP emission rate of each dyeing operation to no more than 0.016 kg of organic HAP per kg of dyeing material. The emission rate for each dyeing operation shall be calculated as a rolling 12-consecutive-month average emission rate.
[40 CFR 63.4290, 40 CFR 63.4291, 40 CFR 63.4300(a)(2), 40 CFR 63.4331(b and c), 40 CFR 63.4332 and Table 1 of 40 CFR 63 Subpart OOOO]

c. *Equivalent emission rate option.* The Permittee shall demonstrate that the affected dyeing source meets all of the following requirements:
[40 CFR 63.4290, 40 CFR 63.4291, 40 CFR 63.4300(a)(4), 40 CFR 63.4330, 40 CFR 63.4331, and Table 1 of 40 CFR 63 Subpart OOOO]

(i) The fraction of organic HAP applied at the dyeing affected source that is discharged to wastewater is 90 percent or more at all times, determined according to 40 CFR 63.4331(d). The dyeing affected source operates at all times within the operating scenarios, as defined in §63.4371, used to determine the fraction of organic HAP applied that is discharged to wastewater.

(ii) The wastewater is discharged to a Publicly Owned Treatment Works (POTW) or onsite secondary wastewater treatment.

(iii) The total organic HAP emissions from the dyeing affected source are less than 10 tons per year, as determined using Equation 4 of 40 CFR 63.4331.

(iv) The applicable requirements of §63.4330 have been met and records have been maintained in accordance with §63.4312(c)(2)(iv).

3.3.4 The Permittee shall not use the equivalent emission rate compliance option concurrently with any other compliance option at the dyeing affected source.
[40 CFR 63.4291(c)]

3.3.5 The Permittee shall comply with all applicable provisions of 40 CFR 63, Subpart DDDDD – "Industrial, Commercial, and Institutional Boilers and Process Heaters" no later than September 13, 2007 or as subsequently amended.
[40 CFR 63 Subpart DDDDD]

3.4 Equipment SIP Rule Standards

3.4.1 The Permittee shall not discharge, or cause the discharge, into the atmosphere from each Process Group, HDR1 and HDR2, any gases which contain PM in excess of the rate derived from the equation noted below. [391-3-1-.02(2)(e)1.]

a. For process input weight rate up to and including 30 tons/hr: $E = 4.1P^{0.67}$;

or

b. For process input weight rate above 30 tons/hr: $E = 55P^{0.11} - 40$

where E equals the allowable PM emission rate in pounds per hour;
and P equals the total dry process input weight rate in tons per hour.

3.4.2 The Permittee shall not discharge, or cause the discharge, into the atmosphere from Process Group PG01, PM emissions in excess of the rate derived from the equation noted below. [391-3-1-.02(2)(fff)]

a. For process input weight rate up to and including 30 tons/hr: $E = 4.1P^{0.67}$

where E equals the allowable PM emission rate in pounds per hour;
and P equals the total dry process input weight rate of raw or partially processed fiber in tons per hour.

3.4.3 The Permittee shall not discharge, or cause the discharge, into the atmosphere from Process Group HDR1, HDR2, or PG01 any gases that exhibit visible emissions the opacity of which is equal to or greater than forty (40) percent.
[391-3-1-.02(2)(b)]

3.4.4 The Permittee shall not discharge, or cause the discharge, into the atmosphere from Boiler HB01 gases which contain PM in amounts equal to or exceeding the rate derived from the equation noted below: [391-3-1-.02(2)(d)2.]

$P = 0.5(10/R)^{0.5}$

where P equals the allowable PM emission rate in pounds per million Btu and R equals the heat input in million Btus per hour.

3.4.5 The Permittee shall not discharge, or cause the discharge, into the atmosphere from Boiler HB01 any gases that exhibit visible emissions the opacity of which is equal to or greater than twenty (20) percent except for one six minute period per hour of not more than twenty-seven (27) percent opacity.
[391-3-1-.02(2)(d)3.]

3.4.6 The Permittee shall not fire any fuel oil that contains greater than 2.5 weight percent sulfur in Boiler HB01.
[391-3-1-.02(2)(g)2.]

3.5 Equipment Standards Not Covered by a Federal or SIP Rule and Not Instituted as an Emission Cap or Operating Limit

None Applicable.

PART 4.0 REQUIREMENTS FOR TESTING

4.1 General Testing Requirements

4.1.1 The Permittee shall cause to be conducted a performance test at any specified emission unit when so directed by the Environmental Protection Division ("Division"). The test results shall be submitted to the Division within 60 days of the completion of the testing. Any tests shall be performed and conducted using methods and procedures that have been previously specified or approved by the Division.
[391-3-1-.02(6)(b)1(i)]

4.1.2 The Permittee shall provide the Division thirty (30) days (or sixty (60) days for tests required by 40 CFR Part 63) prior written notice of the date of any performance test(s) to afford the Division the opportunity to witness and/or audit the test, and shall provide with the notification a test plan in accordance with Division guidelines.
[391-3-1-.02(3)(a)]

4.1.3 Performance and compliance tests shall be conducted and data reduced in accordance with applicable procedures and methods specified in the Division's Procedures for Testing and Monitoring Sources of Air Pollutants. The methods for the determination of compliance with emission limits listed under Sections 3.2, 3.3, 3.4 and 3.5 are as follows:

a. Method 1 shall be used for the determination of sample point locations,

b. Method 2 shall be used for the determination of stack gas flow rate,

c. Method 3 or 3A shall be used for the determination of stack gas molecular weight,

d. Method 3B shall be used for the determination of the emissions rate correction factor or excess air. Method 3A may be used as an alternative to Method 3B,

e. Method 4 shall be used for the determination of stack gas moisture,

f. Method 5 shall be used for the determination of Particulate Matter concentration,

g. Method 9 and the procedures contained in Section 1.3 of the above reference document for the determination of opacity,

h. Method 19 when applicable, to convert particulate matter concentrations (i.e. grains/dscf), as determined using other methods specified in this section, to emission rates (i.e. lb/MMBtu),

i. ASTM D4057 shall be used for the collection of fuel oil samples,

j. Method 19, Section 12.5.2.2.3, shall be used for the determination of fuel oil sulfur content,

k. Method 311, Method 24, or the procedures in 40 CFR 63.4321(e)(1) for the determination of the mass fraction of organic HAP in dyeing materials.

l. Method 24 or the procedures listed in 40 CFR 63.4321(e)(2) for the determination of the mass fraction of solids in dyeing materials, and

m. Method 305 or the procedures listed in 40 CFR 63.4331(c)(1)(ii) for the determination of organic HAP concentration in wastewater streams.

Minor changes in methodology may be specified or approved by the Director or his designee when necessitated by process variables, changes in facility design, or improvement or corrections that, in his opinion, render those methods or procedures, or portions thereof, more reliable.
[391-3-1-.02(3)(a)]

4.2 Specific Testing Requirements

4.2.1 The following applies only to dyeing operations for which the Permittee is using the Emissions Rate Without Add-on Controls compliance option. If the Permittee chooses to account for the mass of organic HAP contained in wastewater generated from dyeing operations, then the Permittee shall conduct performance testing to determine the organic HAP loading to each applicable wastewater stream.

A test shall be conducted for each wastewater stream from each applicable dyeing operatio. under each operating scenario, as defined in 40 CFR 63.4371, that is used during the month (i.e., the compliance period). The Permittee shall use procedures and test methods as specified in 40 CFR 63.4331(c).
[40 CFR 63.4331(c)]

4.2.2 The following applies only to an affected source for which the Permittee is using the Equivalent Emissions Rate compliance option. The Permittee shall conduct performance testing to determine the organic HAP loading to each wastewater stream.

A test shall be conducted for each wastewater stream from each dyeing operation under each operating scenario, as defined in 40 CFR 63.4371, that is used during the month (i.e., the compliance period). The Permittee shall use procedures and test methods as specified in 40 CFR 63.4331(d).
[40CFR 63.4291(c)(4) and 40 CFR 63.4331(d)]

PART 5.0 REQUIREMENTS FOR MONITORING (Related to Data Collection)

5.1 General Monitoring Requirements

5.1.1 Any continuous monitoring system required by the Division and installed by the Permittee shall be in continuous operation and data recorded during all periods of operation of the affected facility except for continuous monitoring system breakdowns and repairs. Monitoring system response, relating only to calibration checks and zero and span adjustments, shall be measured and recorded during such periods. Maintenance or repair shall be conducted in the most expedient manner to minimize the period during which the system is out of service.
[391-3-1-.02(6)(b)1]

5.2 Specific Monitoring Requirements

5.2.1 The Permittee shall, for each day or portion of a day that boiler HB01 is fired with residual oil, conduct a check of visible emissions from the boiler while burning residual fuel oil. For the purposes of this permit, residual oil means any fuel oil which does not comply with the specifications of fuel oils numbers 1 and 2, and meets all of the specifications of fuel oil number 4, 5, or 6 as defined by ASTM D396 (Standard Specification for Fuel Oils). The Permittee shall retain a record of the visible emissions check in a daily visible emissions (VE) log suitable for inspection or submittal to the Division. Should the Permittee be unable to conduct the required VE check because of inclement weather or because residual fuel oil burning occurred only at night, no VE check is required and the Permittee shall indicate such in the VE log. The check shall be conducted using the following procedure:
[391 3 1 .02(6)(b)1 and 40 CFR 70.6(a)(3)(i)]

> The trained observer shall stand at a distance of at least 15 feet, which is sufficient to provide a clear view of the plume against a contrasting background, with the sun in the 140° sector at his/her back. Consistent with this requirement, the determination shall be made from a position such that the line of vision is approximately perpendicular to the plume direction. Make the determination at the point of greatest opacity in the portion of the plume where condensed water vapor is not present.

The person performing the determination shall have received training acceptable to the Division to recognize the appropriate opacity action level and the determination shall cover a period of three minutes. When HB01 is firing oil, the opacity action level shall be any occurrence of visible emissions that is equal to or greater than 20 percent. The Permittee shall determine the cause of the visible emissions and correct the problem in the most expedient manner possible. The Permittee shall maintain a written log defining the cause of any occurrence of visible emissions equal to or greater than the opacity action level and the corrections made.

5.2.2 If the Permittee is unable to conduct the required VE check (see Condition No. 5.2.1) on Boiler HB01 due to the above mentioned constraints for more than 5 times per quarter for two consecutive calendar quarters, the Permittee shall :
[391 3 1 .02(6)(b)1 and 40 CFR 70.6(a)(3)(i)]

a. Notify the Division within fifteen (15) days of such occurrence; and

b. Install and operate monitoring systems to measure and record the oxygen concentration (%) at the furnace exit of Boiler HB01. The Permittee shall install and operate the monitoring systems no later than ninety (90) days after the end of the second consecutive quarter; and

c. Determine the normal oxygen operating range (upper and lower boundaries) in the furnace exit gases for the boiler when residual fuel oil is being burned and the opacity is below the applicable opacity action level. The normal oxygen range shall be determined by correlating opacity levels, determined as described in Condition No. 5.2.1, with % oxygen measurements. The Permittee shall report the operating range, including supporting data, to the Division no later than 120 days after the end of the second consecutive quarter; and

d. For each instance in which Boiler HB01 is fired with residual oil, record the oxygen concentration (%) at the furnace exit of the applicable boiler (s). The oxygen concentration shall be recorded hourly; and

e. Determine the cause of oxygen concentration (%) at the furnace exit of the boiler that is outside the normal operating range as determined above and correct the problem in the most expedient manner possible. The Permittee shall maintain a written log defining the cause of any occurrence of oxygen concentration that is outside the normal range and the corrections made.

PART 6.0 RECORD KEEPING AND REPORTING REQUIREMENTS

6.1 General Record Keeping and Reporting Requirements

6.1.1 Unless otherwise specified, all records required to be maintained by this Permit shall be recorded in a permanent form suitable for inspection and submission to the Division and to the EPA. The records shall be retained for at least five (5) years following the date of entry.
[391-3-1-.02(6)(b)1(i) and 40 CFR 70.6(a)(3)]

6.1.2 In addition to any other reporting requirements of this Permit, the Permittee shall report to the Division in writing, within seven (7) days, any deviations from applicable requirements associated with any malfunction or breakdown of process, fuel burning, or emissions control equipment for a period of four hours or more which results in excessive emissions.

The Permittee shall submit a written report that shall contain the probable cause of the deviation(s), duration of the deviation(s), and any corrective actions or preventive measures taken.
[391-3-1-.02(6)(b)1(iv), 391-3-1-.03(10)(d)1(i) and 40 CFR 70.6(a)(3)(iii)(B)]

6.1.3 The Permittee shall submit written reports of any failure to meet an applicable emission limitation or standard contained in this permit and/or any failure to comply with or complete a work practice standard or requirement contained in this permit which are not otherwise reported in accordance with Conditions 6.1.4 or 6.1.2. Such failures shall be determined through observation, data from any monitoring protocol, or by any other monitoring which is required by this permit. The reports shall cover each semiannual period ending June 30 and December 31 of each year, shall be postmarked by the 30th day following the end of each reporting period, July 30 and January 30, respectively, and shall contain the probable cause of the failure(s), duration of the failure(s), and any corrective actions or preventive measures taken.
[391-3-1-.03(10)(d)1.(i) and 40 CFR 70.6(a)(3)(iii)(B)]

6.1.4 The Permittee shall submit a written report containing any excess emissions, exceedances, and/or excursions as described in this permit and any monitor malfunctions for each semiannual period ending June 30 and December 31 of each year. All reports shall be postmarked by the 30th day following the end of each reporting period, July 30 and January 30, respectively. In the event that there have not been any excess emissions, exceedances, excursions or malfunctions during a reporting period, the report should so state. Otherwise, the contents of each report shall be as specified by the Division's Procedures for Testing and Monitoring Sources of Air Pollutants and shall contain the following:
[391-3-1-.02(6)(b)1 and 40 CFR 70.6(a)(3)(iii)(A)]

a. A summary report of excess emissions, exceedances and excursions, and monitor downtime, in accordance with Section 1.5(c) and (d) of the above referenced document, including any failure to follow required work practice procedures.

b. Total process operating time during each reporting period.

c. The magnitude of all excess emissions, exceedances and excursions computed in accordance with the applicable definitions as determined by the Director, and any conversion factors used, and the date and time of the commencement and completion of each time period of occurrence.

d. Specific identification of each period of such excess emissions, exceedances, and excursions that occur during startups, shutdowns, or malfunctions of the affected facility. Include the nature and cause of any malfunction (if known), the corrective action taken or preventive measures adopted.

e. The date and time identifying each period during which any required monitoring system or device was inoperative (including periods of malfunction) except for zero and span checks, and the nature of the repairs, adjustments, or replacement. When the monitoring system or device has not been inoperative, repaired, or adjusted, such information shall be stated in the report.

f. Certification by a Responsible Official that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.

6.1.5 Where applicable, the Permittee shall keep the following records: [391-3-1-.03(10)(d)1(i) and 40 CFR 70.6(a)(3)(ii)(A)]

a. The date, place, and time of sampling or measurement;

b. The date(s) analyses were performed;

c. The company or entity that performed the analyses;

d. The analytical techniques or methods used;

e. The results of such analyses; and

f. The operating conditions as existing at the time of sampling or measurement.

6.1.6 The Permittee shall maintain files of all required measurements, including continuous monitoring systems, monitoring devices, and performance testing measurements; all continuous monitoring system or monitoring device calibration checks; and adjustments and maintenance performed on these systems or devices. These files shall be kept in a permanent form suitable for inspection and shall be maintained for a period of at least five (5) years following the date of such measurements, reports, maintenance and records. [391-3-1-.03(10)(d)1(i) and 40 CFR 70.6 (a)(3)(ii)(B)]

6.1.7 For the purpose of reporting excess emissions, exceedances or excursions in the report required in Condition 6.1.4, the following excess emissions, exceedances, and excursions shall be reported:
[391-3-1-.02(6)(b)1 and 40 CFR 70.6(a)(3)(i)]

a. Excess emissions: (means for the purpose of this Condition and Condition 6.1.4, any condition that is detected by monitoring or record keeping which is specifically defined, or stated to be, excess emissions by an applicable requirement)

i. None required to be reported in accordance with Condition 6.1.4.

b. Exceedances: (means for the purpose of this Condition and Condition 6.1.4, any condition that is detected by monitoring or record keeping that provides data in terms of an emission limitation or standard and that indicates that emissions (or opacity) do not meet the applicable emission limitation or standard consistent with the averaging period specified for averaging the results of the monitoring)

i. Any 13 consecutive four-week period with a total SO_2 emissions from Boiler HB01 that is equal to or greater than 249 tons. For purposes of this condition, a period is defined as 4 calendar weeks.

ii. Any 13 consecutive four-week period with a total VOC emissions from HDR1 and HDR2, combined, that is equal to or greater than 49 tons. For purposes of this condition, a period is defined as 4 calendar weeks.

iii. Any time during which fuel oil burned in Boiler HB01 has a sulfur content greater than 2.5 percent, by weight.

c. Excursions: (means for the purpose of this Condition and Condition 6.1.4, any departure from an indicator range or value established for monitoring consistent with any averaging period specified for averaging the results of the monitoring)

i. Any required daily determination of visible emissions from boiler HB01 equal to or greater than 20 percent that is not corrected within 24 hours of first discovering the visible emissions.

ii. Should the requirements of Condition 5.2.2b become applicable, any occurrence in which the oxygen percentage in the combustion gases at the furnace exit is outside the normal range established for the boiler.

d. In addition to the excess emissions, exceedances and excursions specified above, the following should also be included with the report required in Condition 6.1.4:

i. Fuel supplier certifications for each shipment of fuel oil received during the reporting period and a statement signed by a responsible official that the records of fuel supplier certifications submitted represent all of the fuel oil received during the semiannual reporting period. If no fuel oil has been received during the reporting period, the report should so state.
[391-3-1-.02(6)(b)1 and 40 CFR 70.6(a)(3)(i)]

ii. The 13 consecutive four-week period total SO_2 emissions (tons) from boiler HB01 for each period and portion thereof in the semiannual reporting time frame noted in Condition 6.1.4. For purposes of this condition, a period is defined as 4 calendar weeks. The Permittee shall include any portion of a period needed to complete the semiannual reporting requirement. The report shall be prepared from the records retained in Condition 6.2.3.

iii. The 13 consecutive four-week period total VOC emissions (tons) from HDR1 and HDR2, combined, for each period and portion thereof in the semiannual reporting time frame noted in Condition 6.1.4. For purposes of this condition, a period is defined as 4 calendar weeks. The Permittee shall include any portion of a period needed to complete the semiannual reporting requirement. The report shall be prepared from the records retained in Condition 6.2.7.

iv. Semiannual compliance reports in accordance with the requirements of 40 CFR 63.4311(a)(1 through 8). The first report shall cover the period starting the day after the end of the initial compliance period and ending on June 30 or December 31, whichever date is at least 6 months after the end of the initial compliance period. Subsequent reports shall cover each 6 month period ending on June 30 or December 31. The report shall address each compliance method used for each dyeing operation during the reporting period and include the content required by 40 CFR 63.4311(a)(3).

v. Any switch in compliance options specified in Condition No. 3.3.3. Such a switch shall be reported in the next semiannual compliance report required by Subparagraph 6.1.7.d.iv.

6.2 Specific Record Keeping and Reporting Requirements

Fuel Sulfur Content and SO_2 Emissions

6.2.1 For each shipment of residual fuel oil, as defined in Condition 5.2.1, received for combustion in boiler HB01, after the date of issuance of this Permit, the Permittee shall obtain from the supplier, certification that the sulfur content of the fuel oil complies with the limit contained in Condition 3.4.6. The fuel supplier certification shall contain the following information:
[391-3-1-.02(6)(b)1 and 40 CFR 70.6(a)(3)(i)]

a. The name of the oil supplier.

b. The location of the oil when the sample was drawn for analysis to determine the sulfur content of the oil, specifically including whether the oil was sampled as delivered to the Permittee or whether the sample was drawn from oil in storage at the oil supplier's or oil refiner's facility, or other location.

c. The sulfur content of the oil from which the shipment came (or of the shipment itself).

d. The method used to determine the sulfur content of the oil.

e. Quantity of fuel oil delivered.

6.2.2 The Permittee shall use the records required by Condition Nos. 6.2.1 and 6.2.11 to calculate and record the SO_2 emissions for each period from boiler HB01, based on the following formula:
[391-3-1-.02(6)(b)1 and 40 CFR 70.6(a)(3)(i)]

SO_2 emissions (tons) = $[157SX_{FR}]/2000$

where:

X_{FR} = residual fuel oil consumption (10^3 gal) during the period

S = highest sulfur content (in percent) of all residual fuel oil shipments received in the most recent six periods in which shipments were received

For purposes of this condition, a period is defined as 4 calendar weeks. Records of all calculations shall be maintained in a form suitable for inspection by or submittal to the Division.

6.2.3 The Permittee shall use the records required in Condition 6.2.2 to calculate the 13 consecutive period total of SO_2 emissions from boiler HB01. For purposes of this condition, a period is defined as 4 calendar weeks.
[391-3-1-.02(6)(b)1 and 40 CFR 70.6(a)(3)(i)]

VOC Emissions

6.2.4 The Permittee shall maintain usage records, on a 4-calendar week basis (period), of all materials containing VOCs used in HDR1 and HDR2. These records shall include the total weight of each material used and the VOC content of each material. All calculations used to determine usages and VOC contents should be kept as part of the period records.
[391-3-1-.02(6)(b)1 and 40 CFR 70.6(a)(3)(i)]

6.2.5 The Permittee shall use the records required by Condition 6.2.4 to calculate the total VOC emissions from HDR1 and HDR2, combined, on a period basis. All calculations used to determine VOC emissions should be kept as part of the period records. For purposes of this condition, a period is defined as 4-calendar weeks.
[391-3-1-.02(6)(b)1 and 40 CFR 70.6(a)(3)(i)]

6.2.6 For purposes of Condition 6.2.5, the Permittee shall use a VOC emission factor of 0.5 lbs VOC emitted per lb of VOC used.
[391-3-1-.03(2)(c)]

6.2.7 The Permittee shall use the records required in Condition 6.2.5 to calculate the 13 consecutive four-week period total of VOC emissions from HDR1 and HDR2, combined. For purposes of this condition, a period is defined as 4 calendar weeks.
[391-3-1-.02(6)(b)1 and 40 CFR 70.6(a)(3)(i)]

Textile MACT Requirements

6.2.8 The Permittee shall submit the Notification of Compliance Status required by 40 CFR 63.9(h) and 40 CFR 63.4310 no later than 30 calendar days following the end of the initial compliance period, as described in 40 CFR 63.4320 or 63.4330, for the applicable compliance method. The notification shall include the information specified in 40 CFR 63.9(h) and 40 CFR 63.4310(c)(1 through 9) including applicable examples and calculations required by 40 CFR 63.4310(c)(8 and 9).
[40 CFR 63.9(h) and 40 CFR 63.4310]

6.2.9 To demonstrate compliance with 40 CFR Subpart OOOO, the Permittee shall satisfy the requirements of one or more of the following compliance options at those times for which the facility is claiming use of the respective option(s):

a. *Compliant Materials Option.* The Permittee shall determine and record monthly the mass fraction of organic HAP for each dyeing material applied in the dyeing operation per the procedures of 40 CFR 63.4321(e)(1) (iv). The mass fraction of organic HAP in each dyeing material is the mass fraction of the material as received from the supplier, prior to any alteration. The mass fraction shall be determined from information from the manufacturer or supplier of the material and shall be quantified using the following formula:

$$\textit{organic HAP mass fraction of dyeing material} = \sum_{i=1}^{n} (mf)_i \text{ where:}$$

n = number of organic HAP components (compounds) in the dyeing material

$(mf)_i$ = mass fraction of organic HAP component i of the dyeing material, rounded to no more than 4 places after the decimal point.

The organic HAP mass fraction of the dyeing material shall be rounded to no less than 3 places after the decimal point. The quantification above must count the following:

i. all organic HAP components which are present at 0.1 % (fraction of 0.001) or more by mass in the dyeing material and which are defined as OSHA carcinogens as specified in 29CFR1910.1200(d)(4), and

ii. all other organic HAP components which are present at 1.0 % (fraction of 0.01) or more by mass in the dyeing material

b. *Emissions Rate Without Controls Option.* The Permittee shall determine and record monthly the 12-consecutive-month average emission rate for each dyeing operation per the procedures of 40 CFR 63.4331(b) and, if applicable, 40 CFR 63.4331(c). The compliance period is each month plus the previous 11 consecutive months. The Permittee shall use these procedures on each regulated material in its condition as received from the supplier and prior to any alteration. The procedures are as follows:

i. Determine the mass fraction of organic HAP for each dyeing material applied during the last 12 consecutive months according to the requirements in 40 CFR 63.4321(e)(1)(iv).

ii. Determine the mass (kg), by measurement or usage records, of each dyeing material applied during the last 12 consecutive months

iii. Calculate the mass of organic HAP emissions using Equation 4 (Eq. 4) of 40 CFR 63.4331:

$$H_e = A - R_w - WW$$

Where:

H_e = Mass of organic HAP emissions during the last 12 consecutive months, kg.

R_w = Total mass of organic HAP in waste materials sent or designated for shipment to a hazardous waste treatment, storage, and disposal facility (TSDF) for treatment or disposal during the compliance period, kg, determined according to paragraph (b)(3)(ii) of 40 CFR 63.4331. A value of zero may be assigned to R_w in lieu of using this allowance.

WW = Total mass of organic HAP in wastewater discharged to a POTW or onsite secondary treatment during the compliance period, kg, determined according to paragraphs (b)(3)(iii) and (c) of 40 CFR 63.4331. A value of zero may be assigned to WW in lieu of using this allowance. The permittee must determine that there has been no change in the operating scenarios, as defined in §63.4371, for which the facility determined the mass of organic HAP applied that is discharged to wastewater according to 40 CFR 63.4331(c). If any change has occurred, the Permittee shall document the changes and determine, as described in Condition No. 4.2.1, the mass of organic HAP discharged to wastewater under the changed operating scenarios.

A = Total mass of organic HAP in the dyeing materials applied during the last 12 consecutive months, kg, as calculated using Equation 4A of 40 CFR 63.4331:

$$A = \sum_{i=1}^{m} (M_{c,i})(W_{c,i})$$

Where:

$M_{c,i}$ = Mass of dyeing material i applied during the compliance period, kg. Water added in mixing at the affected source is not a regulated material and should not be included in the determination of $M_{c,i}$.

$W_{c,i}$ = Mass fraction of organic HAP in dyeing material i, kg organic HAP per kg of material.

m = Number of dyeing and finishing materials applied during the compliance period.

iv. Determine the total combined mass of dyeing materials applied during the compliance period, using Equation 5 of 40 CFR 63.4331:

$$M_t = \sum_{i=1}^{m} M_{c,i}$$

Where:

M_t = total combined mass of dyeing materials applied during the compliance period, kg

$M_{c,i}$ = Mass of dyeing material i applied during the compliance period, kg. Water added in mixing at the affected source is not a regulated material and should not be included in the mass of dyeing material applied

m = Number of dyeing materials applied during the compliance period.

v. Determine the 12-consecutive-month organic HAP emission rate, using Equation 6 of 40 CFR 63.4331:

$$H_{12mo} = \frac{H_e}{M_t}$$

Where:

H_{12mo} = The 12-consecutive-month organic HAP emission rate, kg of organic HAP emitted per kg of dyeing materials applied.

c. *Equivalent Emissions Rate Option.* The Permittee shall determine and record monthly the following:

i. The fraction of organic HAP applied at the dyeing affected source that is discharged to wastewater

ii. That there has been no change in the operating scenarios, as defined in §63.4371, for which the facility determined the fraction of organic HAP applied that is discharged to wastewater according to §63.4331(d). If any change has occurred, the Permittee shall document the changes and determine, as described in Condition No. 4.2.2, the percentage of organic HAP discharged to wastewater under the changed operating scenarios.

iii. The total organic HAP emissions (tons) from the dyeing affected source per year as calculated in Equation 4 of 40 CFR 63.4331.

6.2.10 The Permittee shall collect and keep records as specified in 40 CFR 63.4312. The Permittee shall retain records in the form and for the durations specified in 40 CFR 63.4313. Records must be retained for a minimum of 2 years at the facility and 5 years total.
[40 CFR 63.4312, 40 CFR 63.4313]

6.2.11 The Permittee shall measure and record the quantity (gallons) of oil burned in Boiler HB01 for each 4-calendar week period.
[391 3 1 .02(6)(b)1 and 40 CFR 70.6(a)(3)(i)]

PART 7.0 OTHER SPECIFIC REQUIREMENTS

7.1 Operational Flexibility

7.1.1 The Permittee may make Section 502(b)(10) changes as defined in 40 CFR 70.2 without requiring a Permit revision, if the changes are not modifications under any provisions of Title I of the Federal Act and the changes do not exceed the emissions allowable under the Permit (whether expressed therein as a rate of emissions or in terms of total emissions). For each such change, the Permittee shall provide the Division and the EPA with written notification as required below in advance of the proposed changes and shall obtain any Permits required under Rules 391-3-1-.03(1) and (2). The Permittee and the Division shall attach each such notice to their copy of this Permit.
[391-3-1-.03(10)(b)5 and 40 CFR 70.4(b)(12)(i)]

a. For each such change, the Permittee's written notification and application for a construction Permit shall be submitted well in advance of any critical date (typically at least 6 months in advance of any commencement of construction, Permit issuance date, etc.) involved in the change, but no less than seven (7) days in advance of such change and shall include a brief description of the change within the Permitted facility, the date on which the change is proposed to occur, any change in emissions, and any Permit term or condition that is no longer applicable as a result of the change.

b. The Permit shield described in Condition 8.16.1 shall not apply to any change made pursuant to this condition.

7.2 Off-Permit Changes

7.2.1 The Permittee may make changes that are not addressed or prohibited by this Permit, other than those described in Condition 7.2.2 below, without a Permit revision, provided the following requirements are met:
[391-3-1-.03(10)(b)6 and 40 CFR 70.4(b)(14)]

a. Each such change shall meet all applicable requirements and shall not violate any existing Permit term or condition.

b. The Permittee must provide contemporaneous written notice to the Division and to the EPA of each such change, except for changes that qualify as insignificant under Rule 391-3-1-.03(10)(g). Such written notice shall describe each such change, including the date, any change in emissions, pollutants emitted, and any applicable requirement that would apply as a result of the change.

c. The change shall not qualify for the Permit shield in Condition 8.16.1.

d. The Permittee shall keep a record describing changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the Permit, and the emissions resulting from those changes.

7.2.2 The Permittee shall not make, without a Permit revision, any changes that are not addressed or prohibited by this Permit, if such changes are subject to any requirements under Title IV of the Federal Act or are modifications under any provision of Title I of the Federal Act. [Rule 391-3-1-.03(10)(b)7 and 40 CFR 70.4(b)(15)]

7.3 Alternative Requirements
[White Paper #2]

Not Applicable.

7.4 Insignificant Activities
(see Attachment B for the list of Insignificant Activities in existence at the facility at the time of permit issuance)

7.5 Temporary Sources
[391-3-1-.03(10)(d)5 and 40 CFR 70.6(e)]

Not Applicable.

7.6 Short-term Activities
(see Form D5 "Short Term Activities" of the Permit application and White Paper #1)

7.6.1 The Permittee shall maintain records of the duration and frequency of asbestos removal in accordance with Georgia Rule 391-3-1-.02(9)(b)7.

7.7 Compliance Schedule/Progress Reports
[391-3-1-.03(10)(d)3 and 40 CFR 70.6(c)(4)]

None applicable.

7.8 Emissions Trading
[391-3-1-.03(10)(d)1(ii) and 40 CFR 70.6(a)(10)]

Not Applicable.

7.9 Acid Rain Requirements

Not Applicable.

7.10 Prevention of Accidental Releases (Section 112(r) of the 1990 CAAA)
[391-3-1-.02(10)]

7.10.1 When and if the requirements of 40 CFR Part 68 become applicable, the Permittee shall comply with all applicable requirements of 40 CFR Part 68, including the following.

a. The Permittee shall submit a Risk Management Plan (RMP) as provided in 40 CFR 68.150 through 68.185. The RMP shall include a registration that reflects all covered processes.

b. For processes eligible for Program 1, as provided in 40 CFR 68.10, the Permittee shall comply with 7.10.1.a. and the following additional requirements:

i. Analyze the worst-case release scenario for the process(es), as provided in 40 CFR 68.25; document that the nearest public receptor is beyond the distance to a toxic or flammable endpoint defined in 40 CFR 68.22(a); and submit in the RMP the worst-case release scenario as provided in 40 CFR 68.165.
ii. Complete the five-year accident history for the process as provided in 40 CFR 68.42 and submit in the RMP as provided in 40 CFR 68.168
iii. Ensure that response actions have been coordinated with local emergency planning and response agencies
iv. Include a certification in the RMP as specified in 40 CFR 68.12(b)(4)

c. For processes subject to Program 2, as provided in 40 CFR 68.10, the Permittee shall comply with 7.10.1.a., 7.10.1.b. and the following additional requirements:

i. Develop and implement a management system as provided in 40 CFR 68.15
ii. Conduct a hazard assessment as provided in 40 CFR 68.20 through 68.42
iii. Implement the Program 2 prevention steps provided in 40 CFR 68.48 through 68.60 or implement the Program 3 prevention steps provided in 40 CFR 68.65 through 68.87
iv. Develop and implement an emergency response program as provided in 40 CFR 68.90 through 68.95
v. Submit as part of the RMP the data on prevention program elements for Program 2 processes as provided in 40 CFR 68.170

d. For processes subject to Program 3, as provided in 40 CFR 68.10, the Permittee shall comply with 7.10.1.a., 7.10.1.b. and the following additional requirements:

i. Develop and implement a management system as provided in 40 CFR 68.15
ii. Conduct a hazard assessment as provided in 40 CFR 68.20 through 68.42
iii. Implement the prevention requirements of 40 CFR 68.65 through 68.87
iv. Develop and implement an emergency response program as provided in 40 CFR 68.90 through 68.95
v. Submit as part of the RMP the data on prevention program elements for Program 3 as provided in 40 CFR 68.175

e. All reports and notification required by 40 CFR Part 68 must be submitted electronically (e.g., diskette or compact disc) to:

MAIL

Attention: RMP*Submit
Risk Management Program (RMP) Reporting Center
P.O. Box 1515
Lanham-Seabrook, MD 20703-1515

COURIER & FEDEX

Risk Management Program (RMP) Reporting Center
C/O CSC
Suite 300
8400 Corporate Drive
New Carrollton, MD 20785

Compliance with all requirements of this condition, including the registration and submission of the RMP, shall be included as part of the compliance certification submitted in accordance with Condition 8.14.1.

7.11 Stratospheric Ozone Protection Requirements (Title VI of the CAAA of 1990)

7.11.1 If the Permittee performs any of the activities described below or as otherwise defined in 40 CFR Part 82, the Permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners (MVACs) in Subpart B:

a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156.

b. Equipment used during the maintenance, service, repair, or disposal of appliance must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.

c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

d. Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with record keeping requirements pursuant to 40 CFR 82.166.
[Note: "MVAC-like appliance" is defined in 40 CFR 82.152.]

e. Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to 40 CFR 82.156.

f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.

7.11.2 If the Permittee performs a service on motor (fleet) vehicles and if this service involves a. ozone-depleting substance (refrigerant) in the MVAC, the Permittee is subject to all the applicable requirements as specified in 40 CFR Part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners.

The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include air-tight sealed refrigeration systems used for refrigerated cargo, or air conditioning systems on passenger buses using HCFC-22 refrigerant.

7.12 Revocation of Existing Permits and Amendments

The following Air Quality Permits, Amendments, and 502(b)10 are subsumed by this permit and are hereby revoked:

Air Quality Permit and Amendment Number(s)	Dates of Original Permit or Amendment Issuance
2281-285-0040-V-01-0	January 8, 2001
2281-285-0040-V-01-1	July 10, 2002
2281-285-0040-V-01-2	December 17, 2002

7.13 Pollution Prevention

None applicable.

7.14 Specific Conditions

None applicable.

PART 8.0 GENERAL PROVISIONS

8.1 Terms and References

8.1.1 Terms not otherwise defined in the Permit shall have the meaning assigned to such terms in the referenced regulation.

8.1.2 Where more than one condition in this Permit applies to an emission unit and/or the entire facility, each condition shall apply and the most stringent condition shall take precedence. [391-3-1-.02(2)(a)2]

8.2 EPA Authorities

8.2.1 Except as identified as "State-only enforceable" requirements in this Permit, all terms and conditions contained herein shall be enforceable by the EPA and citizens under the Clean Air Act, as amended, 42 U.S.C. 7401, et seq.
[40 CFR 70.6(b)(1)]

8.2.2 Nothing in this Permit shall alter or affect the authority of the EPA to obtain information pursuant to 42 U.S.C. 7414, "Inspections, Monitoring, and Entry."
[40 CFR 70.6(f)(3)(iv)]

8.2.3 Nothing in this Permit shall alter or affect the authority of the EPA to impose emergency orders pursuant to 42 U.S.C. 7603, "Emergency Powers."
[40 CFR 70.6(f)(3)(i)]

8.3 Duty to Comply

8.3.1 The Permittee shall comply with all conditions of this operating Permit. Any Permit noncompliance constitutes a violation of the Federal Clean Air Act and the Georgia Air Quality Act and/or State rules and is grounds for enforcement action; for Permit termination, revocation and reissuance, or modification; or for denial of a Permit renewal application. Any noncompliance with a Permit condition specifically designated as enforceable only by the State constitutes a violation of the Georgia Air Quality Act and/or State rules only and is grounds for enforcement action; for Permit termination, revocation and reissuance, or modification; or for denial of a Permit renewal application.
[391-3-1-.03(10)(d)1(i) and 40 CFR 70.6(a)(6)(i)]

8.3.2 The Permittee shall not use as a defense in an enforcement action the contention that it would have been necessary to halt or reduce the Permitted activity in order to maintain compliance with the conditions of this Permit.
[391-3-1-.03(10)(d)1(i) and 40 CFR 70.6(a)(6)(ii)]

8.3.3 Nothing in this Permit shall alter or affect the liability of the Permittee for any violation of applicable requirements prior to or at the time of Permit issuance.
[391-3-1-.03(10)(d)1(i) and 40 CFR 70.6(f)(3)(ii)]

8.3.4 Issuance of this Permit does not relieve the Permittee from the responsibility of obtaining any other permits, licenses, or approvals required by the Director or any other federal, state, or local agency.
[391-3-1-.03(10)(e)1(iv) and 40 CFR 70.7(a)(6)]

8.4 Fee Assessment and Payment

8.4.1 The Permittee shall calculate and pay an annual Permit fee to the Division. The amount of fee shall be determined each year in accordance with the "Procedures for Calculating Air Permit Fees."
[391-3-1-.03(9)]

8.5 Permit Renewal and Expiration

8.5.1 This Permit shall remain in effect for five (5) years from the effective date. The Permit shall become null and void after the expiration date unless a timely and complete renewal application has been submitted to the Division at least six (6) months, but no more than eighteen (18) months prior to the expiration date of the Permit.
[391-3-1-.03(10)(d)1(i), (e)2, and (e)3(ii) and 40 CFR 70.5(a)(1)(iii)]

8.5.2 Permits being renewed are subject to the same procedural requirements, including those for public participation and affected State and EPA review, that apply to initial Permit issuance.
[391-3-1-.03(10)(e)3(i)]

8.5.3 Notwithstanding the provisions in 8.5.1 above, if the Division has received a timely and complete application for renewal, deemed it administratively complete, and failed to reissue the Permit for reasons other than cause, authorization to operate shall continue beyond the expiration date to the point of Permit modification, reissuance, or revocation.
[391-3-1-.03(10)(e)3(iii)]

8.6 Transfer of Ownership or Operation

8.6.1 This Permit is not transferable by the Permittee. Future owners and operators shall obtain a new Permit from the Director. The new Permit may be processed as an administrative amendment if no other change in this Permit is necessary, and provided that a written agreement containing a specific date for transfer of Permit responsibility coverage and liability between the current and new Permittee has been submitted to the Division at least thirty (30) days in advance of the transfer.
[391-3-1-.03(4)]

8.7 Property Rights

8.7.1 This Permit shall not convey property rights of any sort, or any exclusive privileges.
[391-3-1-.03(10)(d)1(i) and 40 CFR 70.6(a)(6)(iv)]

8.8 Submissions

8.8.1 Reports, test data, monitoring data, notifications, annual certifications, and requests for revision and renewal shall be submitted to:

Georgia Department of Natural Resources
Environmental Protection Division
Air Protection Branch
Atlanta Tradeport, Suite 120
4244 International Parkway
Atlanta, Georgia 30354-3908

8.8.2 Any records, compliance certifications, and monitoring data required by the provisions in this Permit to be submitted to the EPA shall be sent to:

Air and EPCRA Enforcement Branch – U. S. EPA Region 4
Sam Nunn Atlanta Federal Center
61 Forsyth Street, SW
Atlanta, Georgia 30303-3104

8.8.3 Any application form, report, or compliance certification submitted pursuant to this Permit shall contain a certification by a responsible official of its truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
[391-3-1-.03(10)(c)2, 40 CFR 70.5(d) and 40 CFR 70.6(c)(1)]

8.8.4 Unless otherwise specified, all submissions under this permit shall be submitted to the Division only.

8.9 Duty to Provide Information

8.9.1 The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the Permit application, shall promptly submit such supplementary facts or corrected information to the Division.
[391-3-1-.03(10)(c)5]

8.9.2 The Permittee shall furnish to the Division, in writing, information that the Division may request to determine whether cause exists for modifying, revoking and reissuing, or terminating the Permit, or to determine compliance with the Permit. Upon request, the Permittee shall also furnish to the Division copies of records that the Permittee is required to keep by this Permit or, for information claimed to be confidential, the Permittee may furnish such records directly to the EPA, if necessary, along with a claim of confidentiality.
[391-3-1-.03(10)(d)1(i) and 40 CFR 70.6(a)(6)(v)]

8.10 Modifications

8.10.1 Prior to any source commencing a modification as defined in 391-3-1-.01(pp) that may result in air pollution and not exempted by 391-3-1-.03(6), the Permittee shall submit a Permit application to the Division. The application shall be submitted sufficiently in advance of any critical date involved to allow adequate time for review, discussion, or revision of plans, if necessary. Such application shall include, but not be limited to, information describing the precise nature of the change, modifications to any emission control system, production capacity of the plant before and after the change, and the anticipated completion date of the change. The application shall be in the form of a Georgia air quality Permit application to construct or modify (otherwise known as a SIP application) and shall be submitted on forms supplied by the Division, unless otherwise notified by the Division.
[391-3-1-.03(1) through (8)]

8.11 Permit Revision, Revocation, Reopening and Termination

8.11.1 This Permit may be revised, revoked, reopened and reissued, or terminated for cause by the Director. The Permit will be reopened for cause and revised accordingly under the following circumstances:
[391-3-1-.03(10)(d)1(i)]

a. If additional applicable requirements become applicable to the source and the remaining Permit term is one (1) year or longer. In this case, the reopening shall be completed no later than eighteen (18) months after promulgation of the applicable requirement. A reopening shall not be required if compliance with the applicable requirement is not required until after the date on which the Permit is due to expire;
[391-3-1-.03(10)(e)6(i)(I)]

b. If any additional applicable requirements of the Acid Rain Program become applicable to the source;
[391-3-1-.03(10)(e)6(i)(II)] (Acid Rain sources only)

c. The Director determines that the Permit contains a material mistake or inaccurate statements were made in establishing the emissions standards or other terms or conditions of the Permit; or
[391-3-1-.03(10)(e)6(i)(III) and 40 CFR 70.7(f)(1)(iii)]

d. The Director determines that the Permit must be revised or revoked to assure compliance with the applicable requirements.
[391-3-1-.03(10)(e)6(i)(IV) and 40 CFR 70.7(f)(1)(iv)]

8.11.2 Proceedings to reopen and reissue a Permit shall follow the same procedures as applicable to initial Permit issuance and shall affect only those parts of the Permit for which cause to reopen exists. Reopenings shall be made as expeditiously as practicable.
[391-3-1-.03(10)(e)6(ii)]

8.11.3 Reopenings shall not be initiated before a notice of intent to reopen is provided to the source by the Director at least thirty (30) days in advance of the date the Permit is to be reopened, except that the Director may provide a shorter time period in the case of an emergency.
[391-3-1-.03(10)(e)6(iii)]

8.11.4 All Permit conditions remain in effect until such time as the Director takes final action. The filing of a request by the Permittee for any Permit revision, revocation, reissuance, or termination, or of a notification of planned changes or anticipated noncompliance, shall not stay any Permit condition.
[391-3-1-.03(10)(d)1(i) and 40 CFR 70.6(a)(6)(iii)]

8.11.5 A Permit revision shall not be required for changes that are explicitly authorized by the conditions of this Permit.

8.11.6 A Permit revision shall not be required for changes that are part of an approved economic incentive, marketable Permit, emission trading, or other similar program or process for change which is specifically provided for in this Permit.
[391-3-1-.03(10)(d)1(i) and 40 CFR 70.6(a)(8)]

8.12 Severability

8.12.1 Any condition or portion of this Permit which is challenged, becomes suspended or is ruled invalid as a result of any legal or other action shall not invalidate any other portion or condition of this Permit.
[391-3-1-.03(10)(d)1(i) and 40 CFR 70.6(a)(5)]

8.13 Excess Emissions Due to an Emergency

8.13.1 An "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the Permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.
[391-3-1-.03(10)(d)7 and 40 CFR 70.6(g)(1)]

8.13.2 An emergency shall constitute an affirmative defense to an action brought fo noncompliance with the technology-based emission limitations if the Permittee demonstrates, through properly signed contemporaneous operating logs or other relevant evidence, that:
[391-3-1-.03(10)(d)7 and 40 CFR 70.6(g)(2) and (3)]

a. An emergency occurred and the Permittee can identify the cause(s) of the emergency;

b. The Permitted facility was at the time of the emergency being properly operated;

c. During the period of the emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards, or other requirements in the Permit; and

d. The Permittee promptly notified the Division and submitted written notice of the emergency to the Division within two (2) working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

8.13.3 In an enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency shall have the burden of proof.
[391-3-1-.03(10)(d)7 and 40 CFR 70.6(g)(4)]

8.13.4 The emergency conditions listed above are in addition to any emergency or upset provisions contained in any applicable requirement.
[391-3-1-.03(10)(d)7 and 40 CFR 70.6(g)(5)]

8.14 Compliance Requirements

8.14.1 Compliance Certification

The Permittee shall provide written certification to the Division and to the EPA, at least annually, of compliance with the conditions of this Permit. The annual written certification shall be postmarked no later than January 30 of each year and shall be submitted to the Division and to the EPA. The certification shall include, but not be limited to, the following elements:
[391-3-1-.03(10)(d)3 and 40 CFR 70.6(c)(5)]

a. The identification of each term or condition of the Permit that is the basis of the certification;

b. The status of compliance with the terms and conditions of the permit for the period covered by the certification, including whether compliance during the period was continuous or intermittent, based on the method or means designated in paragraph c below. The certification shall identify each deviation and take it into account in the compliance certification. The certification shall also identify as possible exceptions to compliance any periods during which compliance is required and in which an excursion or exceedance as defined under 40 CFR Part 64 occurred;

c. The identification of the method(s) or other means used by the owner or operator for determining the compliance status with each term and condition during the certification period;

d. Any other information that must be included to comply with section 113(c)(2) of the Act, which prohibits knowingly making a false certification or omitting material information; and

e. Any additional requirements specified by the Division.

8.14.2 Inspection and Entry

a. Upon presentation of credentials and other documents as may be required by law, the Permittee shall allow authorized representatives of the Division to perform the following:
[391-3-1-.03(10)(d)3 and 40 CFR 70.6(c)(2)]

i. Enter upon the Permittee's premises where a Part 70 source is located or an emissions-related activity is conducted, or where records must be kept under the conditions of this Permit;
ii. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Permit;
iii. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this Permit; and
iv. Sample or monitor any substances or parameters at any location during operating hours for the purpose of assuring Permit compliance or compliance with applicable requirements as authorized by the Georgia Air Quality Act.

b. No person shall obstruct, hamper, or interfere with any such authorized representative while in the process of carrying out his official duties. Refusal of entry or access may constitute grounds for Permit revocation and assessment of civil penalties.
[391-3-1-.07 and 40 CFR 70.11(a)(3)(i)]

8.14.3 Schedule of Compliance

a. For applicable requirements with which the Permittee is in compliance, the Permittee shall continue to comply with those requirements.
[391-3-1-.03(10)(c)2 and 40 CFR 70.5(c)(8)(iii)(A)]

b. For applicable requirements that become effective during the Permit term, the Permittee shall meet such requirements on a timely basis unless a more detailed schedule is expressly required by the applicable requirement.
[391-3-1-.03(10)(c)2 and 40 CFR 70.5(c)(8)(iii)(B)]

c. Any schedule of compliance for applicable requirements with which the source is not in compliance at the time of Permit issuance shall be supplemental to, and shall not sanction noncompliance with, the applicable requirements on which it is based.
[391-3-1-.03(10)(c)2 and 40 CFR 70.5(c)(8)(iii)(C)]

8.14.4 Excess Emissions

a. Excess emissions resulting from startup, shutdown, or malfunction of any source which occur though ordinary diligence is employed shall be allowed provided that:
[391-3-1-.02(2)(a)7(i)]

i. The best operational practices to minimize emissions are adhered to;

ii. All associated air pollution control equipment is operated in a manner consistent with good air pollution control practice for minimizing emissions; and

iii. The duration of excess emissions is minimized.

b. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction are prohibited and are violations of Chapter 391-3-1 of the Georgia Rules for Air Quality Control.
[391-3-1-.02(2)(a)7(ii)]

c. The provisions of this condition and Georgia Rule 391-3-1-.02(2)(a)7 shall apply only to those sources which are not subject to any requirement under Georgia Rule 391-3-1-.02(8) – New Source Performance Standards or any requirement of 40 CFR, Part 60, as amended concerning New Source Performance Standards.
[391-3-1-.02(2)(a)7(iii)]

8.15 Circumvention

8.15.1 **State Only Enforceable Condition.**
The Permittee shall not build, erect, install, or use any article, machine, equipment or process the use of which conceals an emission which would otherwise constitute a violation of an applicable emission standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of the pollutants in the gases discharged into the atmosphere.
[391-3-1-.03(2)(c)]

8.16 Permit Shield

8.16.1 Compliance with the terms of this Permit shall be deemed compliance with all applicable requirements as of the date of Permit issuance provided that all applicable requirements are included and specifically identified in the Permit.
[391-3-1-.03(10)(d)6]

8.16.2 Any Permit condition identified as "State only enforceable" does not have a Permit shield.

8.17 Operational Practices

8.17.1 At all times, including periods of startup, shutdown, and malfunction, the Permittee shall maintain and operate the source, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on any information available to the Division that may include, but is not limited to, monitoring results, observations of the opacity or other characteristics of emissions, review of operating and maintenance procedures or records, and inspection or surveillance of the source.
[391-3-1-.02(2)(a)10]

State Only Enforceable Condition.

8.17.2 No person owning, leasing, or controlling, the operation of any air contaminant sources shall willfully, negligently or through failure to provide necessary equipment or facilities or to take necessary precautions, cause, permit, or allow the emission from said air contamination source or sources, of such quantities of air contaminants as will cause, or tend to cause, by themselves, or in conjunction with other air contaminants, a condition of air pollution in quantities or characteristics or of a duration which is injurious or which unreasonably interferes with the enjoyment of life or use of property in such area of the State as is affected thereby. Complying with Georgia's Rules for Air Quality Control Chapter 391-3-1 and Conditions in this Permit, shall in no way exempt a person from this provision.
[391-3-1-.02(2)(a)1]

8.18 Visible Emissions

8.18.1 Except as may be provided in other provisions of this Permit, the Permittee shall not cause, let, suffer, permit or allow emissions from any air contaminant source the opacity of which is equal to or greater than forty (40) percent.
[391-3-1-.02(2)(b)1]

8.19 Fuel-burning Equipment

8.19.1 The Permittee shall not cause, let, suffer, permit, or allow the emission of fly ash and/or other particulate matter from any fuel-burning equipment with rated heat input capacity of less than 10 million Btu per hour, in operation or under construction on or before January 1, 1972 in amounts equal to or exceeding 0.7 pounds per million BTU heat input.
[391-3-1-.02(2)(d)]

8.19.2 The Permittee shall not cause, let, suffer, permit, or allow the emission of fly ash and/or other particulate matter from any fuel-burning equipment with rated heat input capacity of less than 10 million Btu per hour, constructed after January 1, 1972 in amounts equal to or exceeding 0.5 pounds per million BTU heat input.
[391-3-1-.02(2)(d)]

8.19.3 The Permittee shall not cause, let, suffer, permit, or allow the emission from any fuel-burning equipment constructed or extensively modified after January 1, 1972, visible emissions the opacity of which is equal to or greater than twenty (20) percent except for one six minute period per hour of not more than twenty-seven (27) percent opacity.
[391-3-1-.02(2)(d)]

8.20 Sulfur Dioxide

8.20.1 Except as may be specified in other provisions of this Permit, the Permittee shall not burn fuel containing more than 2.5 percent sulfur, by weight, in any fuel burning source that has a heat input capacity below 100 million Btu's per hour.
[391-3-1-.02(2)(g)]

8.21 Particulate Emissions

8.21.1 Except as may be specified in other provisions of this Permit, the Permittee shall not cause, let, permit, suffer, or allow the rate of emission from any source, particulate matter in total quantities equal to or exceeding the allowable rates shown below. Equipment in operation, or under construction contract, on or before July 2, 1968, shall be considered existing equipment. All other equipment put in operation or extensively altered after said date is to be considered new equipment.
[391-3-1-.02(2)(e)]

a. The following equations shall be used to calculate the allowable rates of emission from new equipment:

$E = 4.1P^{0.67}$; for process input weight rate up to and including 30 tons per hour.
$E = 55P^{0.11} - 40$; for process input weight rate above 30 tons per hour.

b. The following equation shall be used to calculate the allowable rates of emission from existing equipment:

$E = 4.1P^{0.67}$

In the above equations, E = emission rate in pounds per hour, and
P = process input weight rate in tons per hour.

8.22 Fugitive Dust

[391-3-1-.02(2)(n)]

8.22.1 Except as may be specified in other provisions of this Permit, the Permittee shall take all reasonable precautions to prevent dust from any operation, process, handling, transportation or storage facility from becoming airborne. Reasonable precautions that could be taken to prevent dust from becoming airborne include, but are not limited to, the following:

a. Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads or the clearing of land;

b. Application of asphalt, water, or suitable chemicals on dirt roads, materials, stockpiles, and other surfaces that can give rise to airborne dusts;

c. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials. Adequate containment methods can be employed during sandblasting or other similar operations;

d. Covering, at all times when in motion, open bodied trucks transporting materials likely to give rise to airborne dusts; and

e. The prompt removal of earth or other material from paved streets onto which earth or other material has been deposited.

8.22.2 The opacity from any fugitive dust source shall not equal or exceed 20 percent.

8.23 Solvent Metal Cleaning

8.23.1 Except as may be specified in other provisions of this Permit, the Permittee shall not cause, suffer, allow, or permit the operation of a cold cleaner degreaser unless the following requirements for control of emissions of the volatile organic compounds are satisfied: [391-3-1-.02(2)(ff)1]

a. The degreaser shall be equipped with a cover to prevent escape of VOC during periods of non-use,

b. The degreaser shall be equipped with a device to drain cleaned parts before removal from the unit,

c. If the solvent volatility is 0.60 psi or greater measured at 100 °F, or if the solvent is heated above 120 °F, then one of the following control devices must be used:

i. The degreaser shall be equipped with a freeboard that gives a freeboard ratio of 0.7 or greater, or

ii. The degreaser shall be equipped with a water cover (solvent must be insolub. in and heavier than water), or

iii. The degreaser shall be equipped with a system of equivalent control, including but not limited to, a refrigerated chiller or carbon adsorption system.

d. Any solvent spray utilized by the degreaser must be in the form of a solid, fluid stream (not a fine, atomized or shower type spray) and at a pressure which will not cause excessive splashing, and

e. All waste solvent from the degreaser shall be stored in covered containers and shall not be disposed of by such a method as to allow excessive evaporation into the atmosphere.

8.24 Incinerators

8.24.1 Except as specified in the section dealing with conical burners, no person shall cause, let, suffer, permit, or allow the emissions of fly ash and/or other particulate matter from any incinerator, in amounts equal to or exceeding the following:
[391-3-1-.02(2)(c)1-4]

a. Units with charging rates of 500 pounds per hour or less of combustible waste, including water, shall not emit fly ash and/or particulate matter in quantities exceeding 1.0 pound per hour.

b. Units with charging rates in excess of 500 pounds per hour of combustible waste, including water, shall not emit fly ash and/or particulate matter in excess of 0.20 pounds per 100 pounds of charge.

8.24.2 No person shall cause, let, suffer, permit, or allow from any incinerator, visible emissions the opacity of which is equal to or greater than twenty (20) percent except for one six minute period per hour of not more than twenty-seven (27) percent opacity.

8.24.3 No person shall cause or allow particles to be emitted from an incinerator which are individually large enough to be visible to the unaided eye.

8.24.4 No person shall operate an existing incinerator unless:

a. It is a multiple chamber incinerator;

b. It is equipped with an auxiliary burner in the primary chamber for the purpose of creating a pre-ignition temperature of 800°F; and

c. It has a secondary burner to control smoke and/or odors and maintain a temperature of at least 1500°F in the secondary chamber.

8.25 Volatile Organic Liquid Handling and Storage

8.25.1 The Permittee shall ensure that each storage tank subject to the requirements of Rule 391-3-1-.02(2)(vv) "Volatile Organic Liquid Handling and Storage" is equipped with submerged fill pipes. For the purposes of this condition and the permit, a submerged fill pipe is defined as any fill pipe with a discharge opening which is within six inches of the tank bottom.
[391-3-1-.02(2)(vv)(1)]

8.26 Use of Any Credible Evidence or Information

8.26.1 Notwithstanding any other provisions of any applicable rule or regulation or requirement of this permit, for the purpose of submission of compliance certifications or establishing whether or not a person has violated or is in violation of any emissions limitation or standard, nothing in this permit or any Emission Limitation or Standard to which it pertains, shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed.
[391-3-1-.02(3)(a)]

Attachments

A. List of Standard Abbreviations and List of Permit Specific Abbreviations
B. Insignificant Activities Checklist, Insignificant Activities Based on Emission Levels and Generic Emission Groups
C. List of References

ATTACHMENT A

List Of Standard Abbreviations

AIRS	Aerometric Information Retrieval System
APCD	Air Pollution Control Device
ASTM	American Society for Testing and Materials
BACT	Best Available Control Technology
BTU	British Thermal Unit
CAAA	Clean Air Act Amendments
CEM	Continuous Emission Monitor
CERMS	Continuous Emission Rate Monitoring System
CFR	Code of Federal Regulations
CMS	Continuous Monitoring System(s)
CO	Carbon Monoxide
COM	Continuous Opacity Monitor
dscf/dscm	Dry Standard Cubic Foot / Dry Standard Cubic Meter
EPA	United States Environmental Protection Agency
EPCRA	Emergency Planning and Community Right to Know Act
gr	Grain(s)
GPM (gpm)	Gallons per minute
H_2O (H2O)	Water
HAP	Hazardous Air Pollutant
CFC	Hydro-chloro-fluorocarbon
MACT	Maximum Achievable Control Technology
MMBtu	Million British Thermal Units
MMBtu/hr	Million British Thermal Units per hour
MVAC	Motor Vehicle Air Conditioner
MW	Megawatt
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO_x (NOx)	Nitrogen Oxides
NSPS	New Source Performance Standards
OCGA	Official Code of Georgia Annotated

PM	Particulate Matter
PM_{10} (PM10)	Particulate Matter less than 10 micrometers in diameter
POTW	Publicly owned treatment works
PPM (ppm)	Parts per Million
PSD	Prevention of Significant Deterioration
RACT	Reasonably Available Control Technology
RMP	Risk Management Plan
SIC	Standard Industrial Classification
SIP	State Implementation Plan
SO_2 (SO2)	Sulfur Dioxide
TSDF	Treatment, Storage, or Disposal Facility
USC	United States Code
VE	Visible Emissions
VOC	Volatile Organic Compound

List of Permit Specific Abbreviations

kg	kilogram
gal	gallon
OSHA	Occupational Safety and Health Administration

ATTACHMENT B

NOTE: Attachment B contains information regarding insignificant emission units/activities and groups of generic emission units/activities in existence at the facility at the time of Permit issuance. Future modifications or additions of insignificant emission units/activities and equipment that are part of generic emissions groups may not necessarily cause this attachment to be updated.

INSIGNIFICANT ACTIVITIES CHECKLIST

Category	Description of Insignificant Activity/Unit	Quantity
Mobile Sources	1. Cleaning and sweeping of streets and paved surfaces	
Combustion Equipment	1. Fire fighting and similar safety equipment used to train fire fighters or other emergency personnel.	1
	2. Small incinerators that are not subject to any standard, limitation or other requirement under Section 111 or 112 (excluding 112(r)) of the Federal Act and are not considered a "designated facility" as specified in 40 CFR 60.32e of the Federal emissions guidelines for Hospital/Medical/Infectious Waste Incinerators, that are operating as follows: i) Less than 8 million BTU/hr heat input, firing types 0, 1, 2, and/or 3 waste.	
	ii) Less than 8 million BTU/hr heat input with no more than 10% pathological (type 4) waste by weight combined with types 0, 1, 2, and/or 3 waste.	
	iii) Less than 4 million BTU/hr heat input firing type 4 waste. (Refer to 391-3-1-.03(10)(g)2.(ii) for descriptions of waste types)	
	3. Open burning in compliance with Georgia Rule 391-3-1-.02 (5).	
	4. Stationary engines burning: i) Natural gas, LPG, gasoline, dual fuel, or diesel fuel which are used exclusively as emergency generators shall not exceed 500 hours per year or 200 hours per year if subject to Georgia Rule 391-3-1-.02(2)(mmm).7	
	ii) Natural gas, LPG, and/or diesel fueled generators used for emergency, peaking, and/or standby power generation, where the combined peaking and standby power generation do not exceed 200 hours per year.	
	iii) Natural gas, LPG, and/or diesel fuel used for other purposes, provided that the output of each engine does not exceed 400 horsepower and that no individual engine operates for more than 2,000 hours per year.	1
	iv) Gasoline used for other purposes, provided that the output of each engine does not exceed 100 horsepower and that no individual engine operates for more than 500 hours per year.	
Trade Operations	1. Brazing, soldering, and welding equipment, and cutting torches related to manufacturing and construction activities whose emissions of hazardous air pollutants (HAPs) fall below 1,000 pounds per year.	1
Maintenance, Cleaning, and Housekeeping	1. Blast-cleaning equipment using a suspension of abrasive in water and any exhaust system (or collector) serving them exclusively.	
	2. Portable blast-cleaning equipment.	
	3. Non-Perchloroethylene Dry-cleaning equipment with a capacity of 100 pounds per hour or less of clothes.	
	4. Cold cleaners having an air/vapor interface of not more than 10 square feet and that do not use a halogenated solvent.	
	5. Non-routine clean out of tanks and equipment for the purposes of worker entry or in preparation for maintenance or decommissioning.	1
	6. Devices used exclusively for cleaning metal parts or surfaces by burning off residual amounts of paint, varnish, or other foreign material, provided that such devices are equipped with afterburners.	
	7. Cleaning operations: Alkaline phosphate cleaners and associated cleaners and burners.	

INSIGNIFICANT ACTIVITIES CHECKLIST

Category	Description of Insignificant Activity/Unit	Quantity
Laboratories and Testing	1. Laboratory fume hoods and vents associated with bench-scale laboratory equipment used for physical or chemical analysis.	1
	2. Research and development facilities, quality control testing facilities and/or small pilot projects, where combined daily emissions from all operations are not individually major or are support facilities not making significant contributions to the product of a collocated major manufacturing facility.	1
Pollution Control	1. Sanitary waste water collection and treatment systems, except incineration equipment or equipment subject to any standard, limitation or other requirement under Section 111 or 112 (excluding 112(r)) of the Federal Act.	
	2. On site soil or groundwater decontamination units that are not subject to any standard, limitation or other requirement under Section 111 or 112 (excluding 112(r)) of the Federal Act.	
	3. Bioremediation operations units that are not subject to any standard, limitation or other requirement under Section 111 or 112 (excluding 112(r)) of the Federal Act.	
	4. Landfills that are not subject to any standard, limitation or other requirement under Section 111 or 112 (excluding 112(r)) of the Federal Act.	
Industrial Operations	1. Concrete block and brick plants, concrete products plants, and ready mix concrete plants producing less than 125,000 tons per year.	
	2. Any of the following processes or process equipment which are electrically heated or which fire natural gas, LPG or distillate fuel oil at a maximum total heat input rate of not more than 5 million BTU's per hour: i) Furnaces for heat treating glass or metals, the use of which do not involve molten materials or oil-coated parts.	
	ii) Porcelain enameling furnaces or porcelain enameling drying ovens.	
	iii) Kilns for firing ceramic ware.	
	iv) Crucible furnaces, pot furnaces, or induction melting and holding furnaces with a capacity of 1,000 pounds or less each, in which sweating or distilling is not conducted and in which fluxing is not conducted utilizing free chlorine, chloride or fluoride derivatives, or ammonium compounds.	
	v) Bakery ovens and confection cookers.	
	3. Carving, cutting, routing, turning, drilling, machining, sawing, surface grinding, sanding, planing, buffing, shot blasting, shot peening, or polishing; ceramics, glass, leather, metals, plastics, rubber, concrete, paper stock or wood, also including roll grinding and ground wood pulping stone sharpening, provided that: i) Activity is performed indoors; & ii) No significant fugitive particulate emissions enter the environment; & iii) No visible emissions enter the outdoor atmosphere.	1
	4. Photographic process equipment by which an image is reproduced upon material sensitized to radiant energy (e.g., blueprint activity, photographic developing and microfiche).	
	5. Grain, food, or mineral extrusion processes	
	6. Equipment used exclusively for sintering of glass or metals, but not including equipment used for sintering metal-bearing ores, metal scale, clay, fly ash, or metal compounds.	
	7. Equipment for the mining and screening of uncrushed native sand and gravel.	
	8. Ozonization process or process equipment.	
	9. Electrostatic powder coating booths with an appropriately designed and operated particulate control system.	
	10. Activities involving the application of hot melt adhesives where VOC emissions are less than 5 tons per year and HAP emissions are less than 1,000 pounds per year.	1
	11. Equipment used exclusively for the mixing and blending water-based adhesives and coatings at ambient temperatures.	1
	12. Equipment used for compression, molding and injection of plastics where VOC emissions are less than 5 tons per year and HAP emissions are less than 1,000 pounds per year.	
	13. Ultraviolet curing processes where VOC emissions are less than 5 tons per year and HAP emissions are less than 1,000 pounds per year.	

INSIGNIFICANT ACTIVITIES CHECKLIST

Category	Description of Insignificant Activity/Unit	Quantity
Storage Tanks and Equipment	1. All petroleum liquid storage tanks storing a liquid with a true vapor pressure of equal to or less than 0.50 psia as stored.	2
	2. All petroleum liquid storage tanks with a capacity of less than 40,000 gallons storing a liquid with a true vapor pressure of equal to or less than 2.0 psia as stored that are not subject to any standard, limitation or other requirement under Section 111 or 112 (excluding 112(r)) of the Federal Act.	
	3. All petroleum liquid storage tanks with a capacity of less than 10,000 gallons storing a petroleum liquid.	
	4. All pressurized vessels designed to operate in excess of 30 psig storing petroleum fuels that are not subject to any standard, limitation or other requirement under Section 111 or 112 (excluding 112(r)) of the Federal Act.	
	5. Gasoline storage and handling equipment at loading facilities handling less than 20,000 gallons per day or at vehicle dispensing facilities that are not subject to any standard, limitation or other requirement under Section 111 or 112 (excluding 112(r)) of the Federal Act.	
	6. Portable drums, barrels, and totes provided that the volume of each container does not exceed 550 gallons.	1
	7. All chemical storage tanks used to store a chemical with a true vapor pressure of less than or equal to 10 millimeters of mercury (0.19 psia).	1

INSIGNIFICANT ACTIVITIES BASED ON EMISSION LEVELS

Description of Emission Units / Activities	Quantity
Wastewater Treatment (pH adjustment only)	1

ATTACHMENT B (continued)

GENERIC EMISSION GROUPS

Emission units/activities appearing in the following table are subject only to one or more of Georgia Rules 391-3-1-.02 (2) (b), (e) &/or (n). Potential emissions of particulate matter, from these sources based on TSP, are less than 25 tons per year per process line or unit in each group. Any emissions unit subject to a NESHAP, NSPS, or any specific Air Quality Permit Condition(s) are not included in this table.

Description of Emissions Units / Activities	Number of Units (if appropriate)	Applicable Rules		
		Opacity Rule (b)	PM from Mfg Process Rule (e)	Fugitive Dust Rule (n)
HFR1 – fiber reclamation	1	y	y	n
HNW1 – non-woven fabric formation	1	y	y	n
HT01 – tufting operation	1	y	y	n

The following table includes groups of fuel burning equipment subject only to Georgia Rules 391-3-1-.02 (2) (b) & (d).Any emissions unit subject to a NESHAP, NSPS, or any specific Air Quality Permit Condition(s) are not included in this table.

Description of Fuel Burning Equipment	Number of Units
Fuel burning equipment with a rated heat input capacity of less than 10 million BTU/hr burning only natural gas and/or LPG.	0
Fuel burning equipment with a rated heat input capacity of less than 5 million BTU/hr, burning only distillate fuel oil, natural gas and/or LPG.	0
Any fuel burning equipment with a rated heat input capacity of 1 million BTU/hr or less.	0

ATTACHMENT C

LIST OF REFERENCES

1. The Georgia Rules for Air Quality Control Chapter 391-3-1. All Rules cited herein which begin with 391-3-1 are State Air Quality Rules.

2. Title 40 of the Code of Federal Regulations; specifically 40 CFR Parts 50, 51, 52, 60, 61, 63, 64, 68, 70, 72, 73, 75, 76 and 82. All rules cited with these parts are Federal Air Quality Rules.

3. ***Georgia Department of Natural Resources, Environmental Protection Division, Air Protection Branch, Procedures for Testing and Monitoring Sources of Air Pollutants.***

4. ***Georgia Department of Natural Resources, Environmental Protection Division, Air Protection Branch, Procedures for Calculating Air Permit Fees.***

5. Compilation of Air Pollutant Emission Factors, AP-42, Fifth Edition, Volume I: Stationary Point and Area Sources. This information may be obtained from EPA's TTN web site at *www.epa.gov/ttn/chief/ap42.html.*

6. The latest properly functioning version of EPA's **TANKS** emission estimation software. The software may be obtained from EPA's TTN web site at *www.epa.gov/ttn/chief/tanks.html.*

7. The Clean Air Act (42 U.S.C. 7401 et seq).

8. White Paper for Streamlined Development of Part 70 Permit Applications, July 10, 1995 (White Paper #1).

9. White Paper Number 2 for Improved Implementation of the Part 70 Operating Permits Program, March 5, 1996 (White Paper #2).

Appendix

H

Part 70 Operating Permit

Permit Number: 2262-285-0045-V-01-0 **Effective Date:** March 26, 2001

Facility Name: Milliken & Company - Valway Plant

Facility Address: 1300 Forth Avenue
LaGrange, Georgia 30240 (Troup County)

Mailing Address: P.O. Box 1926
Spartanburg, South Carolina 29304

Parent/Holding Company: Milliken & Company

Facility AIRS Number: 04-13-285-00045 **Primary SIC:** 2262

In accordance with the provisions of the Georgia Air Quality Act, O.C.G.A. Section 12-9-1, et seq and the Georgia Rules for Air Quality Control, Chapter 391-3-1, adopted pursuant to and in effect under the Act, the Permittee described above is issued a Part 70 Permit for:

the operation of a facility that prepares and finishes fabrics on textile ranges.

This Permit is conditioned upon compliance with all provisions of The Georgia Air Quality Act, O.C.G.A. Section 12-9-1, et seq, the Rules, Chapter 391-3-1, adopted and in effect under that Act, or any other condition of this Permit. Unless modified or revoked, this Permit expires five years after the effective date indicated above.

This Permit may be subject to revocation, suspension, modification or amendment by the Director for cause including evidence of noncompliance with any of the above; or for any misrepresentation made in Title V Application No. TV-9115 which was determined to be complete on December 21, 1996; any other applications upon which this Permit is based; supporting data entered therein or attached thereto; or any subsequent submittal or supporting data; or for any alterations affecting the emissions from this source.

This Permit is further subject to and conditioned upon the terms, conditions, limitations, standards, or schedules contained in or specified on the attached **25** pages, which pages are a part of this Permit.

Director
Environmental Protection Division

TABLE OF CONTENTS

Note: Citations in brackets provide underlying regulatory authority for permit requirements. Refer to Attachment C.

PART 1.0 FACILITY DESCRIPTION

1.1 Site Determination

The Milliken & Company Hillside Plant (AFS No. 285-00040), Milliken & Company Hillside Coating Plant (AFS No. 285-00082) and Milliken & Company Valway Plant (AFS No. 285-00045) comprise the same Title V site because the plants are located on contiguous property, operate under common control, and are a major source of HAPs. This Title V Permit will cover only the Milliken & Company Valway Plant (AFS No. 285-00045). The remaining portions of this site are covered under the following Title V permit applications:

Plant	Application No.	Primary SIC Code
Milliken & Company - Hillside Plant	TV-9182	2262
Milliken & Company -Hillside Coating Plant	TV-9109	3069

Also, please note that the Milliken & Company Hillside Coating Plant (AFS No. 285-00082) does not comprise the same Title I site with the Milliken & Company Hillside Plant (AFS No. 285-00040) and the Milliken & Company Valway Plant (AFS No. 285-00045) because the Hillside Coating Plant does not have the same two digit SIC code and it is not classified as a support facility.

1.2 Previous and/or Other Names

No previous names identified.

1.3 Overall Facility Process Description

The Milliken & Company Valway Plant (Milliken) finishes broadwoven fabrics on six textile finishing ranges (R001, R002, R003, R004, R005, and R006). These textile finishing ranges may include one or more chemical application pad(s), scouring box(es), and oven(s) in addition to the textile handling and auxiliary equipment (all ranges do not have all components). The chemical application consists of chemical dip pans and/or coater(s). The scouring box(es) consist of equipment designed to clean or scour textiles with water or an aqueous based solution. The oven(s) are used to dry, heatset, or both.

PART 2.0 REQUIREMENTS PERTAINING TO THE ENTIRE FACILITY

2.1 Emission Limits

None applicable.

2.2 Facility Wide Federal Rule Standards

None applicable.

2.3 Facility Wide SIP Rule Standards

None applicable.

2.4 Facility Wide Standards Not Covered by a Federal or SIP Rule and Not Instituted as an Emission Cap or Operating Limit

None applicable.

PART 3.0 REQUIREMENTS FOR EMISSION UNITS

Note: Except where an applicable requirement specifically states otherwise, the averaging times of any of the Emissions Limitations or Standards included in this permit are tied to or based on the run time(s) specified for the applicable reference test method(s) or procedures required for demonstrating compliance.

3.1 Emission Units

Emission Units		Specific Limitations/Requirements		Air Pollution Control Devices	
ID No.	Description	Applicable Requirements / Standards	Corresponding Permit Conditions	ID No.	Description
R001	Process Group - Textile Finishing Range	391-3-1-.02(2)(e) 391-3-1-.02(2)(b) 391-3-1-.02(2)(g)	3.2.1, 3.4.1, 3.4.2, 3.4.3, 5.2.1, 5.2.2, 5.2.3, 6.2.1, 6.2.2, 6.2.3, 6.2.4	WEP1	WESP
R002	Process Group - Textile Finishing Range	391-3-1-.02(2)(e) 391-3-1-.02(2)(b) 391-3-1-.02(2)(g)	Same as for R001	WEP1	WESP
R003	Process Group - Textile Finishing Range	391-3-1-.02(2)(e) 391-3-1-.02(2)(b) 391-3-1-.02(2)(g)	Same as for R001	WEP1	WESP
R004	Process Group - Textile Finishing Range	391-3-1-.02(2)(e) 391-3-1-.02(2)(b) 391-3-1-.02(2)(g)	Same as for R001	WEP1	WESP
R005	Process Group - Textile Finishing Range	391-3-1-.02(2)(e) 391-3-1-.02(2)(b) 391-3-1-.02(2)(g)	3.2.1, 3.2.2, 3.4.1, 3.4.2, 3.4.3, 5.2.1, 5.2.2, 5.2.3, 6.2.1, 6.2.2, 6.2.3, 6.2.4	WEP1	WESP
R006	Process Group - Textile Finishing Range	391-3-1-.02(2)(e) 391-3-1-.02(2)(b) 391-3-1-.02(2)(g)	3.2.1, 3.4.1, 3.4.2, 3.4.3, 6.2.1, 6.2.2, 6.2.3, 6.2.4	None	NA
T001	Scour Solution Tank	40 CFR 60 Subpart Kb	3.4.1, 3.4.2, 6.2.5	None	NA

* Generally Applicable Requirements contained in this permit may apply also to emission units listed above

3.2 Equipment Emission Caps and Operating Limits

3.2.1 The Permittee shall not discharge, or cause the discharge, into the atmosphere, from R001, R002, R003, R004, R005, and R006, combined, VOC emission in amount equal to or exceeding 200 tons during any 13 consecutive periods. For purposes of this condition, a period is defined as 4 calendar weeks.
[Avoidance of PSD - 40 CFR 52.21]

3.2.2 Each coating used in Process Group R005 shall meet the following specifications:
[Avoidance of 40 CFR 60 Subpart VVV]

a. Contain more than five (5) weight percent water in its volatile fraction; and

b. The VOC content of the coating is equal to or less than nine (9) percent by weight of the volatile fraction.

3.3 Equipment Federal Rule Standards

None Applicable.

3.4 Equipment SIP Rule Standards

3.4.1 The Permittee shall not discharge, or cause the discharge, into the atmosphere from each Process Group, R001, R002, R003, R004, R005, and R006, any gases which contain PM in excess of the rate derived from the equation noted below.
[391-3-1-.02(2)(e)1.]

a. For process input weight rate up to and including 30 tons/hr:
$E = 4.1P^{0.67}$; or

b. For process input weight rate above 30 tons/hr:
$E = 55P^{0.11} - 40$

where E equals the allowable PM emission rate in pounds per hour and P equals the total dry process input weight rate in ton per hour.

3.4.2 The Permittee shall not discharge, or cause the discharge, into the atmosphere, from each unit in Process Group, R001, R002, R003, R004, R005, and R006, any gases that exhibit visible emissions, the opacity of which is equal to or greater than forty (40) percent. [391-3-1-.02(2)(b)]

3.4.3 The Permittee shall not fire any fuel that contains greater than 2.5 weight percent sulfur in Process Groups R001, R002, R003, R004, R005, and R006.
[391-3-1-.02(2)(g)2.]

3.5 Equipment Standards Not Covered by a Federal or SIP Rule and Not Instituted as an Emission Cap or Operating Limit

None Applicable.

PART 4.0 REQUIREMENTS FOR TESTING

4.1 General Testing Requirements

4.1.1 The Permittee shall cause to be conducted a performance test at any specified emission point when so directed by the Environmental Protection Division ("Division"). The test results shall be submitted to the Division within 30 days of the completion of the testing. Any tests shall be performed and conducted using methods and procedures which have been previously specified or approved by the Division.
[391-3-1-.02(6)(b)1(i)]

4.1.2 The Permittee shall provide the Division thirty (30) days prior written notice of the date of any performance test(s) to afford the Division the opportunity to witness and/or audit the test, and shall provide with the notification a test plan in accordance with Division guidelines.
[391-3-1-.02(3)(a)]

4.1.3 Performance and compliance tests shall be conducted and data reduced in accordance with applicable procedures and methods specified in the Division's **Procedures for Testing and Monitoring Sources of Air Pollutants**. The methods for the determination of compliance with emission limits listed under Sections 3.2 and 3.4 which pertain to the emission units listed in Section 3.1 are as follows:

a. Method 1 shall be used for the determination of sample point locations,

b. Method 2 shall be used for the determination of stack gas flow rate,

c. Method 3 or 3A shall be used for the determination of stack gas molecular weight,

d. Method 4 shall be used for the determination of stack gas moisture,

e. Method 5 shall be used for the determination of Particulate Matter concentration,

f. Method 9 and the procedures contained in Section 1.3 of the above reference document for the determination of opacity, and

g. Method 24 shall be used for the determination of the VOC content of coatings.

Minor changes in methodology may be specified or approved by the Director or his designee when necessitated by process variables, changes in facility design, or improvement or corrections which, in his opinion, render those methods or procedures, or portions thereof, more reliable. [391-3-1-.02(3)(a)]

4.2 Specific Testing Requirements

None applicable.

PART 5.0 REQUIREMENTS FOR MONITORING (Related to Data Collection)

5.1 General Monitoring Requirements

5.1.1 Any continuous monitoring system required by the Division and installed by the Permittee shall be in continuous operation and data recorded during all periods of operation of the affected facility except for continuous monitoring system breakdowns and repairs. Data shall be recorded during calibration checks and zero and span adjustments. Maintenance or repair shall be conducted in the most expedient manner to minimize the period during which the system is out of service. [391-3-1-.02(6)(b)1]

5.2 Specific Monitoring Requirements

5.2.1 The Permittee shall install, calibrate, maintain, and operate monitoring devices for the measurement of the indicated parameters on the following equipment. Data shall be recorded at the frequency specified below. Where such performance specification(s) exist, each system shall meet the applicable performance specification(s) of the Division's monitoring requirements. [391-3-1-.02(6)(b)1 and 40 CFR 70.6(a)(3)(i)]

a. Secondary (DC) voltage on each field in WESP WEP1. The secondary (DC) voltage shall be recorded, as a minimum, at two-hour intervals during operation of finishing ranges R001, R002, R003, R004, and/or R005. The Permittee shall also record the date and time of the record.

b. Temperature of the gas stream at the outlet of the quench chamber of WESP WEP1. The temperature shall be recorded, as a minimum, at two-hour intervals during operation of finishing ranges R001, R002, R003, R004, and/or R005. The Permittee shall also record the date and time of the record. The Permittee shall implement this condition within 180 days of Permit issuance.

5.2.2 Within 180 days of the date of issuance of this Permit, the Permittee shall establish the secondary (DC) voltage for representative operation of WESP WEP1 using data from the applicable monitoring device required by Condition 5.2.1a. The Permittee shall submit, for acceptance by the Division, a report containing the secondary (DC) voltage data, the secondary (DC) voltage which has been established as representative of WEP1 operation, and a description of the procedures used to establish the voltage. [391-3-1-.02(6)(b)1 and 40 CFR 70.6(a)(3)(i)]

5.2.3 Within 180 days of the date of issuance of this Permit, the Permittee shall establish the temperature of the gas stream at the outlet of the quench chamber for representative operation of WESP WEP1 using data from the applicable monitoring device required by Condition 5.2.1b. The Permittee shall submit, for acceptance by the Division, a report containing the temperature data, the temperature which has been established as representative of WEP1 operation, and a description of the procedures used to establish the temperature. [391-3-1-.02(6)(b)1 and 40 CFR 70.6(a)(3)(i)]

5.3 Record Keeping and Reporting Requirements (associated with Specific Monitoring Requirements)

5.3.1 The Permittee shall, in accordance with the requirements of Condition Nos. 6.1.1 and 6.1.6 of the Permit, maintain records of all data and information required by Condition Nos. 5.2.1, 5.2.2, and 5.2.3. Reports shall be submitted in accordance with the requirements of Condition 6.1.4 of this Permit. [391-3-1-.02(6)(b)1 and 40 CFR 70.6(a)(3)(i)]

PART 6.0 OTHER RECORD KEEPING AND REPORTING REQUIREMENTS

6.1 General Record Keeping and Reporting Requirements

6.1.1 Unless otherwise specified, all records required to be maintained by this Permit shall be recorded in a permanent form suitable for inspection and submission to the Division and to the EPA. The records shall be retained for at least five (5) years following the date of entry.
[391-3-1-.02(6)(b)1(i) and 40 CFR 70.6(a)(3)]

6.1.2 In addition to any other reporting requirements of this Permit, the Permittee shall report to the Division in writing, within seven (7) days, any deviations from applicable requirements associated with any malfunction or breakdown of process, fuel burning, or emissions control equipment for a period of four hours or more which results in excessive emissions.

The Permittee shall submit a written report which shall contain the probable cause of the deviation(s), duration of the deviation(s), and any corrective actions or preventive measures taken.
[391-3-1-.02(6)(b)1(iv), 391-3-1-.03(10)(d)1(i) and 40 CFR 70.6(a)(3)(iii)(B)]

6.1.3 The Permittee shall submit written reports of any failure to meet an applicable emission limitation or standard contained in this permit and/or any failure to comply with or complete a work practice standard or requirement contained in this permit which are not otherwise reported in accordance with conditions 6.1.4 or 6.1.2. Such failures shall be determined through observation, data from any monitoring protocol, or by any other monitoring which is required by this permit. The reports shall cover each semiannual period ending June 30 and December 31 of each year, shall be postmarked by the 30th day following the end of each reporting period, July 30 and January 30, respectively, and shall contain the probable cause of the failure(s), duration of the failure(s), and any corrective actions or preventive measures taken.
[391-3-1-.03(10)(d)1.(i) and 40 CFR 70.6(a)(3)(iii)(B)]

6.1.4 The Permittee shall submit a written report containing any excess emissions, exceedances, and/or excursions as described in this permit and any monitor malfunctions for each semiannual period ending June 30 and December 31 of each year. All reports shall be postmarked by the 30th day following the end of each reporting period, July 30 and January 30, respectively. In the event that there have not been any excess emissions, exceedances, excursions or malfunctions during a reporting period, the report should so state. Otherwise, the contents of each report shall be as specified by the Division's Procedures for Testing and Monitoring Sources of Air Pollutants and shall contain the following:
[391-3-1-.02(6)(b)1 and 40 CFR 70.6(a)(3)(iii)(A)]

a. A summary report of excess emissions, exceedances and excursions, and monitor downtime, in accordance with Section 1.5(c) and (d) of the above referenced document, including any failure to follow required work practice procedures.

b. Total process operating time during each reporting period.

c. The magnitude of all excess emissions, exceedances and excursions computed in accordance with the applicable definitions as determined by the Director, and any conversion factors used, and the date and time of the commencement and completion of each time period of occurrence.

d. Specific identification of each period of such excess emissions, exceedances, and excursions that occur during startups, shutdowns, or malfunctions of the affected facility. The nature and cause of any malfunction (if known), the corrective action taken or preventive measures adopted.

e. The date and time identifying each period during which any required monitoring system or device was inoperative (including periods of malfunction) except for zero and span checks, and the nature of the repairs, adjustments, or replacement. When the monitoring system or device has not been inoperative, repaired, or adjusted, such information shall be stated in the report.

f. Certification by a Responsible Official that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.

6.1.5 Where applicable, the Permittee shall keep the following records:
[391-3-1-.03(10)(d)1(i) and 40 CFR 70.6(a)(3)(ii)(A)]

a. The date, place, and time of sampling or measurement;

b. The date(s) analyses were performed;

c. The company or entity that performed the analyses;

d. The analytical techniques or methods used;

e. The results of such analyses; and

f. The operating conditions as existing at the time of sampling or measurement.

6.1.6 The Permittee shall maintain files of all measurements, including continuous monitoring systems, monitoring devices, and performance testing measurements; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices. These files shall be kept in a permanent form suitable for inspection and shall be maintained for a period of at least five (5) years following the date of such measurements, reports, maintenance and records.
[391-3-1-.03(10)(d)1(i) and 40 CFR 70.6 (a)(3)(ii)(B)]

6.1.7 For the purpose of reporting excess emissions, exceedances or excursions in the report required in Condition 6.1.4, the following excess emissions, exceedances, and excursions shall be reported:
[391-3-1-.02(6)(b)1 and 40 CFR 70.6(a)(3)(i)]

a. Excess emissions: (means for the purpose of this Condition and Condition 6.1.4, any condition that is detected by monitoring or record keeping which is specifically defined, or stated to be, excess emissions by an applicable requirement)

None required to be reported in accordance with Condition 6.1.4.

b. Exceedances: (means for the purpose of this Condition and Condition 6.1.4, any condition that is detected by monitoring or record keeping that provides data in terms of an emission limitation or standard and that indicates that emissions (or opacity) do not meet the applicable emission limitation or standard consistent with the averaging period specified for averaging the results of the monitoring)

i. Any 13 consecutive four-week period total VOC emissions from R001, R002, R003, R004, R005, and R006, combined, that is equal to or greater than 200 tons. For purposes of this condition, a period is defined as 4 calendar weeks.

ii. Any time a coating is used in Process Group R005 that does not meet the specifications in Condition 3.2.2.

c. Excursions: (means for the purpose of this Condition and Condition 6.1.4, any departure from an indicator range or value established for monitoring consistent with any averaging period specified for averaging the results of the monitoring)

i. Any measurement taken in accordance with Condition 5.2.1.a that is below the secondary (DC) voltage value established in Condition 5.2.2 for WESP WEP1.

ii. Any measurement taken in accordance with Condition 5.2.1.b that is greater than the temperature value specified in Condition 5.2.3 for WESP WEP1.

6.2 Specific Record Keeping and Reporting Requirements

6.2.1 The Permittee shall maintain usage records of all materials containing VOCs used in Process Groups R001, R002, R003, R004, R005, and R006 on a 4-calendar week period basis. These records shall include the following: (1) The total weight of each material used or containerized waste material disposed; and (2) The VOC content of each material or waste (expressed as a weight percentage). All calculations used to figure usages and VOC content should be kept as part of the 4-calendar week period record.
[391-3-1-.02(6)(b)1. and 40 CFR 70.6(a)(3)(i)]

6.2.2 The Permittee shall use the records required in Condition 6.2.1 to calculate the following (Note: For purposes of this condition, a period is defined as 4 calendar weeks):

a. The weight percent water in its volatile fraction for each coating used in Process Group R005. All calculations used to figure these parameters shall be kept as part of the record for that period.
[391-3-1-.02(6)(b)1., 40 CFR 70.6(a)(3)(i) and Avoidance of 40 CFR 60 Subpart VVV]

b. The weight percent VOC in its volatile fraction for each coating used in Process Group R005. All calculations used to figure these parameters shall be kept as part of the record for that period.
[391-3-1-.02(6)(b)1., 40 CFR 70.6(a)(3)(i) and Avoidance of 40 CFR 60 Subpart VVV]

c. The total 4-calendar week period VOC emissions (in tons) from R001, R002, R003, R004, R005, and R006, combined. All calculations used to figure this parameter shall be kept as part of the record for that period.
[391-3-1-.02(6)(b)1 and 40 CFR 70.6(a)(3)(i)]

6.2.3 The Permittee shall use the records required by Condition 6.2.2c to determine the 13 consecutive four-week period total of VOC emissions (in tons) from R001, R002, R003, R004, R005, and R006, combined, on a period basis. A 13 consecutive four-week period total shall be the total for a four-week period in the reporting period plus the totals for the previous 12 consecutive four-week periods. For purposes of this condition, a period is defined as 4 calendar weeks.
[391-3-1-.02(6)(b)1. and 40 CFR 70.6(a)(3)(i)]

6.2.4 For purposes of the report required in Condition 6.1.4, the following should be included:
[391-3-1-.02(6)(b)1. and 40 CFR 70.6(a)(3)(i)]

a. The 13 consecutive four-week period total VOC emissions (tons) from R001, R002, R003, R004, R005, and R006, combined, for each period and portion thereof in the semiannual reporting time frame noted in Condition 6.1.4. For purposes of this condition, a period is defined as 4 calendar weeks. The Permittee shall include any portion of a period needed to complete the semiannual reporting requirement. The reports shall be prepared from the records retained in Condition 6.2.3.

6.2.5 The Permittee shall maintain a record of the dimension of and an analysis showing the capacity of tank T001. This information shall be available for inspection or submittal to the Division for the life of the storage tank.
[40 CFR 70.6(a)(3)(i), 40 CFR 60.116b(a), 40 CFR 60.116b(b)]

PART 7.0 OTHER SPECIFIC REQUIREMENTS

7.1 Operational Flexibility

7.1.1 The Permittee may make Section 502(b)(10) changes as defined in 40 CFR 70.2 without requiring a Permit revision, if the changes are not modifications under any provisions of Title I of the Federal Act and the changes do not exceed the emissions allowable under the Permit (whether expressed therein as a rate of emissions or in terms of total emissions). For each such change, the Permittee shall provide the Division and the EPA with written notification as required below in advance of the proposed changes and **shall obtain any Permits required under Rules 391-3-1-.03(1) and (2)**. The Permittee and the Division shall attach each such notice to their copy of this Permit.
[391-3-1-.03(10)(b)5 and 40 CFR 70.4(b)(12)(i)]

a. For each such change, the Permittee's written notification and **application for a construction Permit shall be submitted well in advance of any critical date** (typically at least 90 days in advance of any commencement of construction, Permit issuance date, etc.) involved in the change, but no less than seven (7) days in advance of such change and shall include a brief description of the change within the Permitted facility, the date on which the change is proposed to occur, any change in emissions, and any Permit term or condition that is no longer applicable as a result of the change.

b. The Permit shield described in Condition 8.16.1 shall not apply to any change made pursuant to this condition.

7.2 Off-Permit Changes

7.2.1 The Permittee may make changes that are not addressed or prohibited by this Permit, other than those described in Condition 7.2.2 below, without a Permit revision, provided the following requirements are met:
[391-3-1-.03(10)(b)6 and 40 CFR 70.4(b)(14)]

a. Each such change shall meet all applicable requirements and shall not violate any existing Permit term or condition.

b. The Permittee must provide contemporaneous written notice to the Division and to the EPA of each such change, except for changes that qualify as insignificant under Rule 391-3-1-.03(10)(g). Such written notice shall describe each such change, including the date, any change in emissions, pollutants emitted, and any applicable requirement that would apply as a result of the change.

c. The change shall not qualify for the Permit shield in Condition 8.16.1.

d. The Permittee shall keep a record describing changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the Permit, and the emissions resulting from those changes.

e. **The source shall obtain any Permits required under Rules 391-3-1-.03(1) and (2).**

7.2.2 The Permittee shall not make, without a Permit revision, any changes that are not addressed or prohibited by this Permit, if such changes are subject to any requirements under Title IV of the Federal Act or are modifications under any provision of Title I of the Federal Act. [Rule 391-3-1-.03(10)(b)7 and 40 CFR 70.4(b)(15)]

7.3 Alternative Requirements
[White Paper #2]

Not Applicable

7.4 Insignificant Activities
(see Attachment B for the list of Insignificant Activities in existence at the facility at the time of permit issuance)

7.5 Temporary Sources
[391-3-1-.03(10)(d)5 and 40 CFR 70.6(e)]

Not Applicable

7.6 Short-term Activities
(see Section 4.40 of Permit application and White Paper #1)

7.6.1 The Permittee shall maintain records of the duration and frequency of asbestos removal in accordance with Georgia Rule 391-3-1-.02(9)(b)7.

7.7 Compliance Schedule/Progress Reports
[391-3-1-.03(10)(d)3 and 40 CFR 70.6(c)(4)]

None applicable.

7.8 Emissions Trading
[391-3-1-.03(10)(d)1(ii) and 40 CFR 70.6(a)(10)]

Not Applicable

7.9 Acid Rain Requirements

Not Applicable

7.10 Prevention of Accidental Releases (Section 112(r) of the 1990 CAAA)
[391-3-1-.02(10)]

7.10.1 The Permittee shall submit a Risk Management Plan (RMP) in accordance with the 40 CFR Part 68, when and if, such requirement becomes applicable. All reports and notifications required by 40 CFR Part 68 must be submitted electronically (e.g. diskette or compact disc) to:

Attention: RMP*Submit
RMP Reporting Center
P.O. Box 3346
Merrifield, VA 22116-3346

7.11 Stratospheric Ozone Protection Requirements (Title VI of the CAAA of 1990)

7.11.1 If the Permittee performs any of the activities described below or as otherwise defined in 40 CFR Part 82, the Permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners (MVACs) in Subpart B:

a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156.

b. Equipment used during the maintenance, service, repair, or disposal of appliance must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.

c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

d. Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with record keeping requirements pursuant to 40 CFR 82.166.
[Note: "MVAC-like appliance" is defined in 40 CFR 82.152.]

e. Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to 40 CFR 82.156.

f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.

7.11.2 If the Permittee performs a service on motor (fleet) vehicles and if this service involves an ozone-depleting substance (refrigerant) in the MVAC, the Permittee is subject to all the applicable requirements as specified in 40 CFR Part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners.

The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include air-tight sealed refrigeration systems used for refrigerated cargo, or air conditioning systems on passenger buses using HCFC-22 refrigerant.

7.12 Revocation of Existing Permits and Amendments

The following Air Quality Permits and Amendments are hereby revoked:

Air Quality Permit Number	Dates of Original Permit Issuance or Amendment
2295-141-10795	July 19, 1992 Amended October 30, 1996

7.13 Pollution Prevention

Not Applicable

7.14 Specific Conditions

None applicable.

PART 8.0 GENERAL PROVISIONS

8.1 Terms and References

8.1.1 Terms not otherwise defined in the Permit shall have the meaning assigned to such terms in the referenced regulation.

8.1.2 Where more than one condition in this Permit applies to an emission unit and/or the entire facility, each condition shall apply and the most stringent condition shall take precedence.
[391-3-1-.02(2)(a)2]

8.2 EPA Authorities

8.2.1 Except as identified as "State-only enforceable" requirements in this Permit, all terms and conditions contained herein shall be enforceable by the EPA and citizens of the United States under the Clean Air Act, as amended, 42 U.S.C. 7401, et seq.
[40 CFR 70.6(b)(1)]

8.2.2 Nothing in this Permit shall alter or affect the authority of the EPA to obtain information pursuant to 42 U.S.C. 7414, "Inspections, Monitoring, and Entry."
[40 CFR 70.6(f)(3)(iv)]

8.2.3 Nothing in this Permit shall alter or affect the authority of the EPA to impose emergency orders pursuant to 42 U.S.C. 7603, "Emergency Powers."
[40 CFR 70.6(f)(3)(i)]

8.3 Duty to Comply

8.3.1 The Permittee shall comply with all conditions of this operating Permit. Any Permit noncompliance constitutes a violation of the Federal Clean Air Act and the Georgia Air Quality Act and/or State rules and is grounds for enforcement action; for Permit termination, revocation and reissuance, or modification; or for denial of a Permit renewal application. Any noncompliance with a Permit condition specifically designated as enforceable only by the State constitutes a violation of the Georgia Air Quality Act and/or State rules only and is grounds for enforcement action; for Permit termination, revocation and reissuance, or modification; or for denial of a Permit renewal application.
[391-3-1-.03(10)(d)1(i) and 40 CFR 70.6(a)(6)(i)]

8.3.2 The Permittee shall not use as a defense in an enforcement action the contention that it would have been necessary to halt or reduce the Permitted activity in order to maintain compliance with the conditions of this Permit.
[391-3-1-.03(10)(d)1(i) and 40 CFR 70.6(a)(6)(ii)]

8.3.3 Nothing in this Permit shall alter or affect the liability of the Permittee for any violation of applicable requirements prior to or at the time of Permit issuance.
[391-3-1-.03(10)(d)1(i) and 40 CFR 70.6(f)(3)(ii)]

8.3.4 Issuance of this Permit does not relieve the Permittee from the responsibility of obtaining any other permits, licenses, or approvals required by the Director or any other federal, state, or local agency.
[391-3-1-.03(10)(e)1(iv) and 40 CFR 70.7(a)(6)]

8.4 Fee Assessment and Payment

8.4.1 The Permittee shall calculate and pay an annual Permit fee to the Division. The amount of fee shall be determined each year in accordance with the "Procedures for Calculating Air Permit Fees."
[391-3-1-.03(9)]

8.5 Permit Renewal and Expiration

8.5.1 This Permit shall remain in effect for five (5) years from the date of issuance. The Permit shall become null and void after the expiration date unless a timely and complete renewal application has been submitted to the Division at least six (6) months, but no more than eighteen (18) months prior to the expiration date of the Permit.
[391-3-1-.03(10)(d)1(i), (e)2, and (e)3(ii) and 40 CFR 70.5(a)(1)(iii)]

8.5.2 Permits being renewed are subject to the same procedural requirements, including those for public participation and affected State and EPA review, that apply to initial Permit issuance.
[391-3-1-.03(10)(e)3(i)]

8.5.3 Notwithstanding the provisions in 8.5.1 above, if the Division has received an application for renewal, deemed it administratively complete, and failed to reissue the Permit for reasons other than cause, authorization to operate shall continue beyond the expiration date to the point of Permit modification, reissuance, or revocation.
[391-3-1-.03(10)(e)3(iii)]

8.6 Transfer of Ownership or Operation

8.6.1 This Permit is not transferable by the Permittee. Future owners and operators shall obtain a new Permit from the Director. The new Permit may be processed as an administrative amendment if no other change in this Permit is necessary, and provided that a written agreement containing a specific date for transfer of Permit responsibility coverage and liability between the current and new Permittee has been submitted to the Division at least thirty (30) days in advance of the transfer.
[391-3-1-.03(4)]

8.7 Property Rights

8.7.1 This Permit shall not convey property rights of any sort, or any exclusive privileges.
[391-3-1-.03(10)(d)1(i) and 40 CFR 70.6(a)(6)(iv)]

8.8 Submissions

8.8.1 Reports, test data, monitoring data, notifications, annual certifications, and requests for revision and renewal shall be submitted to:

Georgia Department of Natural Resources
Environmental Protection Division
Air Protection Branch
Atlanta Tradeport, Suite 120
4244 International Parkway
Atlanta, Georgia 30354-3908

8.8.2 Any records, compliance certifications, and monitoring data required by the provisions in this Permit to be submitted to the EPA shall be sent to:

Air and EPCRA Enforcement Branch
U. S. EPA Region 4
61 Forsyth Street
Atlanta, Georgia 30303

8.8.3 Any application form, report, or compliance certification submitted pursuant to this Permit shall contain a certification by a responsible official of its truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
[391-3-1-.03(10)(c)2 and 40 CFR 70.5(d)]

8.8.4 Unless otherwise specified, all submissions under this permit shall be submitted to the Division only.

8.9 Duty to Provide Information

8.9.1 The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the Permit application, shall promptly submit such supplementary facts or corrected information to the Division.
[391-3-1-.03(10)(c)5]

8.9.2 The Permittee shall furnish to the Division, in writing, information that the Division may request to determine whether cause exists for modifying, revoking and reissuing, or terminating the Permit, or to determine compliance with the Permit. Upon request, the Permittee shall also furnish to the Division copies of records that the Permittee is required to keep by this Permit or, for information claimed to be confidential, the Permittee may furnish such records directly to the EPA, if necessary, along with a claim of confidentiality.
[391-3-1-.03(10)(d)1(i) and 40 CFR 70.6(a)(6)(v)]

8.10 Modifications

8.10.1 Prior to any source commencing a modification as defined in 391-3-1-.01(pp) which may result in air pollution and not exempted by 391-3-1-.03(6), the Permittee shall submit a Permit application to the Division. The application shall be submitted sufficiently in advance of any critical date involved to allow adequate time for review, discussion, or revision of plans, if necessary. Such application shall include, but not be limited to, information describing the precise nature of the change, modifications to any emission control system, production capacity of the plant before and after the change, and the anticipated completion date of the change. The application shall be in the form of a Georgia air quality Permit application to construct or modify (otherwise known as a SIP application) and shall be submitted on forms supplied by the Division, unless otherwise notified by the Division.
[391-3-1-.03(1) through (8)]

8.11 Permit Revision, Revocation, Reopening and Termination

8.11.1 This Permit may be revised, revoked, reopened and reissued, or terminated for cause by the Director. The Permit will be reopened for cause and revised accordingly under the following circumstances:

a. If additional applicable requirements become applicable to the source and the remaining Permit term is one (1) year or longer. In this case, the reopening shall be completed no later than eighteen (18) months after promulgation of the applicable requirement. A reopening shall not be required if compliance with the applicable requirement is not required until after the date on which the Permit is due to expire;
[391-3-1-.03(10)(e)6(i)(I)]

b. If any additional applicable requirements of the Acid Rain Program become applicable to the source;
[391-3-1-.03(10)(e)6(i)(II)] (Acid Rain sources only)

c. The Director determines that the Permit contains a material mistake or inaccurate statements were made in establishing the emissions standards or other terms or conditions of the Permit; or
[391-3-1-.03(10)(e)6(i)(III) and 40 CFR 70.7(f)(1)(iii)]

d. The Director determines that the Permit must be revised or revoked to assure compliance with the applicable requirements.
[391-3-1-.03(10)(e)6(i)(IV) and 40 CFR 70.7(f)(1)(iv)]

8.11.2 Proceedings to reopen and reissue a Permit shall follow the same procedures as applicable to initial Permit issuance and shall affect only those parts of the Permit for which cause to reopen exists. Reopenings shall be made as expeditiously as practicable.
[391-3-1-.03(10)(e)6(ii)]

8.11.3 Reopenings shall not be initiated before a notice of intent to reopen is provided to the source by the Division at least thirty (30) days in advance of the date the Permit is to be reopened, except that the Director may provide a shorter time period in the case of an emergency.
[391-3-1-.03(10)(e)6(iii)]

8.11.4 All Permit conditions remain in effect until such time as the Director takes final action. The filing of a request by the Permittee for any Permit revision, revocation, reissuance, or termination, or of a notification of planned changes or anticipated noncompliance, shall not stay any Permit condition.
[391-3-1-.03(10)(d)1(i) and 40 CFR 70.6(a)(6)(iii)]

8.11.5 **State Only Enforceable Condition.**
At any time that the Director determines that additional control of emissions from the facility may reasonably be needed to provide for the continued protection of public health, safety and welfare, the Director reserves the right to amend the provisions of this Permit pursuant to the Director's authority as established in the Georgia Air Quality Act and the rules adopted pursuant to that Act.
[391-3-1-.02(2)(a)3]

8.11.6 A Permit revision shall not be required for changes which are explicitly authorized by the conditions of this Permit.

8.11.7 A Permit revision shall not be required for changes that are part of an approved economic incentive, marketable Permit, emission trading, or other similar program or process for change which is specifically provided for in this Permit.
[391-3-1-.03(10)(d)1(i) and 40 CFR 70.6(a)(8)]

8.12 Severability

8.12.1 Any condition or portion of this Permit which is challenged, becomes suspended or is ruled invalid as a result of any legal or other action shall not invalidate any other portion or condition of this Permit.
[391-3-1-.03(10)(d)1(i) and 40 CFR 70.6(a)(5)]

8.13 Excess Emissions Due to an Emergency

8.13.1 An "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the Permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.
[391-3-1-.03(10)(d)7 and 40 CFR 70.6(g)(1)]

8.13.2 An emergency shall constitute an affirmative defense to an action brought for noncompliance with the technology-based emission limitations if the Permittee demonstrates, through properly signed contemporaneous operating logs or other relevant evidence, that:
[391-3-1-.03(10)(d)7 and 40 CFR 70.6(g)(2) and (3)]

a. An emergency occurred and the Permittee can identify the cause(s) of the emergency;

b. The Permitted facility was at the time of the emergency being properly operated;

c. During the period of the emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards, or other requirements in the Permit; and

d. The Permittee promptly notified the Division and submitted written notice of the emergency to the Division within two (2) working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

8.13.3 In an enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency shall have the burden of proof.
[391-3-1-.03(10)(d)7 and 40 CFR 70.6(g)(4)]

8.13.4 The emergency conditions listed above are in addition to any emergency or upset provisions contained in any applicable requirement.
[391-3-1-.03(10)(d)7 and 40 CFR 70.6(g)(5)]

8.14 Compliance Requirements

8.14.1 Compliance Certification

The Permittee shall provide written certification to the Division and to the EPA, at least annually, of compliance with the conditions of this Permit. The annual written certification shall be postmarked no later than January 30 of each year and shall be submitted to the Division and to the EPA. The certification shall include, but not be limited to, the following elements: [391-3-1-.03(10)(d)3 and 40 CFR 70.6(c)(5)]

a. The identification of each term or condition of the Permit that is the basis of the certification;

b. The status of compliance with the terms and conditions of the permit for the period covered by the certification, based on the method or means designated in paragraph c below. The certification shall identify each deviation and take it into account in the compliance certification. The certification shall also identify as possible exceptions to compliance any periods during which compliance is required and in which an excursion or exceedance as defined under 40 CFR Part 64 of this chapter occurred;

c. The identification of the method(s) or other means used by the owner or operator for determining the compliance status with each term and condition during the certification period and whether such methods or other means provide continuous or intermittent data;

d. Any other information that must be included to comply with section 113(c)(2) of the Act, which prohibits knowingly making a false certification or omitting material information; and

e. Any additional requirements specified by the Division.

8.14.2 Inspection and Entry

a. Upon presentation of credentials and other documents as may be required by law, the Permittee shall allow authorized representatives of the Division to perform the following: [391-3-1-.03(10)(d)3 and 40 CFR 70.6(c)(2)]

i. Enter upon the Permittee's premises where a Part 70 source is located or an emissions-related activity is conducted, or where records must be kept under the conditions of this Permit;

ii. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Permit;

iii. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this Permit; and

iv. Sample or monitor any substances or parameters at any location during operating hours for the purpose of assuring Permit compliance, compliance with applicable requirements, or as otherwise authorized by the Clean Air Act.

b. No person shall obstruct, hamper, or interfere with any such authorized representative while in the process of carrying out his official duties. Refusal of entry or access may constitute grounds for Permit revocation and assessment of civil penalties.
[391-3-1-.07 and 40 CFR 70.11(a)(3)(i)]

8.14.3 Schedule of Compliance

a. For applicable requirements with which the Permittee is in compliance, the Permittee shall continue to comply with those requirements.
[391-3-1-.03(10)(c)2 and 40 CFR 70.5(c)(8)(iii)(A)]

b. For applicable requirements that become effective during the Permit term, the Permittee shall meet such requirements on a timely basis unless a more detailed schedule is expressly required by the applicable requirement.
[391-3-1-.03(10)(c)2 and 40 CFR 70.5(c)(8)(iii)(B)]

c. Any schedule of compliance for applicable requirements with which the source is not in compliance at the time of Permit issuance shall be supplemental to, and shall not sanction noncompliance with, the applicable requirements on which it is based.
[391-3-1-.03(10)(c)2 and 40 CFR 70.5(c)(8)(iii)(C)]

8.15 Circumvention

8.15.1 **State Only Enforceable Condition.**
The Permittee shall not build, erect, install, or use any article, machine, equipment or process the use of which conceals an emission which would otherwise constitute a violation of an applicable emission standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of the pollutants in the gases discharged into the atmosphere.
[391-3-1-.03(2)(c)]

8.16 Permit Shield

8.16.1 Compliance with the terms of this Permit shall be deemed compliance with all applicable requirements as of the date of Permit issuance provided that all applicable requirements are included and specifically identified in the Permit.
[391-3-1-.03(10)(d)6]

8.16.2 Any Permit condition identified as "State only enforceable" does not have a Permit shield.

8.17 Operational Practices

8.17.1 At all times, including periods of startup, shutdown, and malfunction, the Permittee shall maintain and operate the source, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on any information available to the Division which may include, but is not limited to, monitoring results, observations of the opacity or other characteristics of emissions, review of operating and maintenance procedures or records, and inspection or surveillance of the source.
[391-3-1-.02(2)(a)10]

8.17.2 No person owning, leasing, or controlling, the operation of any air contaminant sources shall willfully, negligently or through failure to provide necessary equipment or facilities or to take necessary precautions, cause, permit, or allow the emission from said air contamination source or sources, of such quantities of air contaminants as will cause, or tend to cause, by themselves, or in conjunction with other air contaminants, a condition of air pollution in quantities or characteristics or of a duration which is injurious or which unreasonably interferes with the enjoyment of life or use of property in such area of the State as is affected thereby. Complying with Georgia's Rules for Air Quality Control Chapter 391-3-1 and Conditions in this Permit, shall in no way exempt a person from this provision.
[391-3-1-.02(2)(a)1]

8.18 Visible Emissions
[391-3-1-.02(2)(b)]

8.18.1 Except as may be provided in other provisions of this Permit, the Permittee shall not cause, let, suffer, permit or allow emissions from any air contaminant source the opacity of which is equal to or greater than forty (40) percent.

8.18.2 The visible emission limitation in Condition 8.18.1 applies only to facilities or sources subject to some other emission limitation under the Georgia Air Quality Control Rule 391-3-1-.02(2).

8.19 Fuel-burning Equipment

8.19.1 The Permittee shall not cause, let, suffer, permit, or allow the emission of fly ash and/or other particulate matter from any fuel-burning equipment with rated heat input capacity of less than 10 million Btu per hour, in operation or under construction on or before January 1, 1972 in amounts equal to or exceeding 0.7 pounds per million BTU heat input.
[391-3-1-.02(2)(d)]

8.19.2 The Permittee shall not cause, let, suffer, permit, or allow the emission of fly ash and/or other particulate matter from any fuel-burning equipment with rated heat input capacity of less than 10 million Btu per hour, constructed after January 1, 1972 in amounts equal to or exceeding 0.5 pounds per million BTU heat input.
[391-3-1-.02(2)(d)]

8.19.3 The Permittee shall not cause, let, suffer, permit, or allow the emission from any fuel-burning equipment constructed or extensively modified after January 1, 1972, visible emissions the opacity of which is equal to or greater than twenty (20) percent except for one six minute period per hour of not more than twenty-seven (27) percent opacity.
[391-3-1-.02(2)(d)]

8.20 Sulfur Dioxide

8.20.1 Except as may be specified in other provisions of this Permit, the Permittee shall not:
[391-3-1-.02(2)(g)]

a. burn fuel containing more than 2.5 percent sulfur, by weight, in any fuel burning sources rated below 100 million BTU's of heat input per hour;

b. burn fuel containing more than 3 percent sulfur, by weight, in any fuel burning sources rated at or above 100 million BTU's of heat input per hour.

8.21 Particulate Emissions

8.21.1 Except as may be specified in other provisions of this Permit, the Permittee shall not cause, let, permit, suffer, or allow the rate of emission from any source, particulate matter in total quantities equal to or exceeding the allowable rates shown below. Equipment in operation, or under construction contract, on or before July 2, 1968, shall be considered existing equipment. All other equipment put in operation or extensively altered after said date is to be considered new equipment.
[391-3-1-.02(2)(e)]

a. The following equations shall be used to calculate the allowable rates of emission from new equipment:

$E = 4.1P^{0.67}$; for process input weight rate up to and including 30 tons per hour.

$E = 55P^{0.11} - 40$; for process input weight rate above 30 tons per hour.

b. The following equation shall be used to calculate the allowable rates of emission from existing equipment:

$E = 4.1P^{0.67}$

In the above equations, E = emission rate in pounds per hour, and
P = process input weight rate in tons per hour.

8.22 Fugitive Dust
[391-3-1-.02(2)(n)]

8.22.1 Except as may be specified in other provisions of this Permit, the Permittee shall take all reasonable precautions to prevent dust from any operation, process, handling, transportation or storage facility from becoming airborne. Reasonable precautions which could be taken to prevent dust from becoming airborne include, but are not limited to, the following:

a. Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads or the clearing of land;

b. Application of asphalt, water, or suitable chemicals on dirt roads, materials, stockpiles, and other surfaces which can give rise to airborne dusts;

c. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials. Adequate containment methods can be employed during sandblasting or other similar operations;

d. Covering, at all times when in motion, open bodied trucks, transporting materials likely to give rise to airborne dusts; and

e. The prompt removal of earth or other material from paved streets onto which earth or other material has been deposited.

8.22.2 The opacity from any fugitive dust source shall not equal or exceed 20 percent.

Attachments

A. List of Standard Abbreviations and List of Permit Specific Abbreviations
B. Insignificant Activities Checklist, Insignificant Activities Based on Emission Levels and Generic Emission Groups
C. List of References

ATTACHMENT A

List Of Standard Abbreviations

AIRS	Aerometric Information Retrieval System
APCD	Air Pollution Control Device
ASTM	American Society for Testing and Materials
BACT	Best Available Control Technology
BTU	British Thermal Unit
CAAA	Clean Air Act Amendments
CEM	Continuous Emission Monitor
CFR	Code of Federal Regulations
CMS	Continuous Monitoring System(s)
CO	Carbon Monoxide
COM	Continuous Opacity Monitor
dscf / dscm	Dry Standard Cubic Foot / Dry Standard Cubic Meter
EPA	United States Environmental Protection Agency
EPCRA	Emergency Planning and Community Right to Know Act
gr	Grain(s)
GPM (gpm)	Gallons per minute
H_2O (H2O)	Water
HAP	Hazardous Air Pollutant
HCFC	Hydro-chloro-fluorocarbon
MACT	Maximum Achievable Control Technology
MMBtu	Million British Thermal Units
MVAC	Motor Vehicle Air Conditioner
MW	Megawatt
NESHAP	National Emission Standards for Hazardous Air Pollutants
NOx	Nitrogen Oxides
NSPS	New Source Performance Standards
OCGA	Official Code of Georgia Annotated
PM	Particulate Matter
PM10 (PM_{10})	Particulate Matter less than 10 micrometers in diameter
PPM (ppm)	Parts per Million
PSD	Prevention of Significant Deterioration
RACT	Reasonably Available Control Technology
RMP	Risk Management Plan
SIC	Standard Industrial Classification
SIP	State Implementation Plan
SO2 (SO_2)	Sulfur Dioxide
USC	United States Code
VE	Visible Emissions
VOC	Volatile Organic Compound

List of Permit Specific Abbreviations

WESP	Wet Electrostatic Precipitator

ATTACHMENT B

NOTE: Attachment B contains information regarding insignificant emission units/activities and groups of generic emission units/activities in existence at the facility at the time of Permit issuance. Future modifications or additions of insignificant emission units/activities and equipment which are part of generic emissions groups may not necessarily cause this attachment to be updated.

INSIGNIFICANT ACTIVITIES CHECKLIST

Category	Description of Insignificant Activity/Unit	Quantity
Mobile Sources	1. Cleaning and sweeping of streets and paved surfaces	Varies
Combustion Equipment	1. Fire fighting and similar safety equipment used to train fire fighters or other emergency personnel.	Varies
	2. Small incinerators that are not subject to any standard, limitation or other requirement under Section 111 or 112 (excluding 112(r)) of the Federal Act and are not considered a "designated facility" as specified in 40 CFR 60.32e of the Federal emissions guidelines for Hospital/Medical/Infectious Waste Incinerators, that are operating as follows::	
	i) less than 8 million BTU/hr heat input, firing types 0, 1, 2, and/or 3 waste.	0
	ii) less than 8 million BTU/hr heat input with no more than 10% pathological (type 4) waste by weight combined with types 0, 1, 2, and/or 3 waste.	0
	iii) less than 4 million BTU/hr heat input firing type 4 waste. (Refer to 391-3-1-.03(10)(g)2.(ii) for descriptions of waste types)	0
	3. Open burning in compliance with Georgia Rule 391-3-1-.02 (5).	0
	4. Stationary engines burning:	
	i) Natural gas, LPG, gasoline, dual fuel, or diesel fuel which are used exclusively as emergency generators;	0
	ii) Natural gas, LPG, and/or diesel fueled generators used for emergency, peaking, and/or standby power generation, where the combined peaking and standby power generation do not exceed 200 hours per year.	0
	iii) Natural gas, LPG, and/or diesel fuel used for other purposes, provided that the output of each engine does not exceed 400 horsepower and that no individual engine operates for more than 2,000 hours per year.	0
	iv) Gasoline used for other purposes, provided that the output of each engine does not exceed 100 horsepower and that no individual engine operates for more than 500 hours per year.	0
Trade Operations	1. Brazing, soldering, and welding equipment, and cutting torches related to manufacturing and construction activities whose emissions of hazardous air pollutants (HAPs) fall below 1,000 pounds per year.	Varies
Maintenance, Cleaning, and Housekeeping	1. Blast-cleaning equipment using a suspension of abrasive in water and any exhaust system (or collector) serving them exclusively.	Varies
	2. Portable blast-cleaning equipment.	Varies
	3. Non-Perchloroethylene Dry-cleaning equipment with a capacity of 100 pounds per hour or less of clothes.	0
	4. Cold cleaners having an air/vapor interface of not more than 10 square feet and that do not use a halogenated solvent.	1
	5. Non-routine clean out of tanks and equipment for the purposes of worker entry or in preparation for maintenance or decommissioning.	Varies
	6. Devices used exclusively for cleaning metal parts or surfaces by burning off residual amounts of paint, varnish, or other foreign material, provided that such devices are equipped with afterburners.	0
	7. Cleaning operations: Alkaline phosphate cleaners and associated cleaners and burners.	Varies

INSIGNIFICANT ACTIVITIES CHECKLIST

Category	Description of Insignificant Activity/Unit	Quantity
Laboratories and Testing	1. Laboratory fume hoods and vents associated with bench-scale laboratory equipment used for physical or chemical analysis.	Varies
	2. Research and development facilities, quality control testing facilities and/or small pilot projects, where combined daily emissions from all operations are not individually major or are support facilities not making significant contributions to the product of a collocated major manufacturing facility.	Varies
Pollution Control	1. Sanitary waste water collection and treatment systems, except incineration equipment or equipment subject to any standard, limitation or other requirement under Section 111 or 112 (excluding 112(r)) of the Federal Act..	0
	2. On site soil or groundwater decontamination units that are not subject to any standard, limitation or other requirement under Section 111 or 112 (excluding 112(r)) of the Federal Act.	0
	3. Bioremediation operations units that are not subject to any standard, limitation or other requirement under Section 111 or 112 (excluding 112(r)) of the Federal Act.	0
	4. Landfills that are not subject to any standard, limitation or other requirement under Section 111 or 112 (excluding 112(r)) of the Federal Act.	0
Industrial Operations	1. Concrete block and brick plants, concrete products plants, and ready mix concrete plants producing less than 125,000 tons per year.	0
	2. Any of the following processes or process equipment which are electrically heated or which fire natural gas, LPG or distillate fuel oil at a maximum total heat input rate of not more than 5 million BTU's per hour:	
	i) Furnaces for heat treating glass or metals, the use of which do not involve molten materials or oil-coated parts.	0
	ii) Porcelain enameling furnaces or porcelain enameling drying ovens.	0
	iii) Kilns for firing ceramic ware.	0
	iv) Crucible furnaces, pot furnaces, or induction melting and holding furnaces with a capacity of 1,000 pounds or less each, in which sweating or distilling is not conducted and in which fluxing is not conducted utilizing free chlorine, chloride or fluoride derivatives, or ammonium compounds.	0
	v) Bakery ovens and confection cookers.	0
	3. Carving, cutting, routing, turning, drilling, machining, sawing, surface grinding, sanding, planing, buffing, shot blasting, shot peening, or polishing; ceramics, glass, leather, metals, plastics, rubber, concrete, paper stock or wood, also including roll grinding and ground wood pulping stone sharpening, provided that: i) Activity is performed indoors; & ii) No significant fugitive particulate emissions enter the environment; & iii) No visible emissions enter the outdoor atmosphere.	Varies
	4. Photographic process equipment by which an image is reproduced upon material sensitized to radiant energy (e.g., blueprint activity, photographic developing and microfiche).	0
	5. Grain, food, or mineral extrusion processes	0
	6. Equipment used exclusively for sintering of glass or metals, but not including equipment used for sintering metal-bearing ores, metal scale, clay, fly ash, or metal compounds.	0
	7. Equipment for the mining and screening of uncrushed native sand and gravel.	0
	8. Ozonization process or process equipment.	0
	9. Electrostatic powder coating booths with an appropriately designed and operated particulate control system.	0
	10. Activities involving the application of hot melt adhesives where VOC emissions are less than 5 tons per year and HAP emissions are less than 1,000 pounds per year.	0

INSIGNIFICANT ACTIVITIES CHECKLIST

Category	Description of Insignificant Activity/Unit	Quantity
Industrial Operations (continued)	11. Equipment used exclusively for the mixing and blending water-based adhesives and coatings at ambient temperatures.	Varies
	12. Equipment used for compression, molding and injection of plastics where VOC emissions are less than 5 tons per year and HAP emissions are less than 1,000 pounds per year.	0
	13. Ultraviolet curing processes where VOC emissions are less than 5 tons per year and HAP emissions are less than 1,000 pounds per year.	0
Storage Tanks and Equipment	1. All petroleum liquid storage tanks storing a liquid with a true vapor pressure of equal to or less than 0.50 psia as stored.	0
	2. All petroleum liquid storage tanks with a capacity of less than 40,000 gallons storing a liquid with a true vapor pressure of equal to or less than 2.0 psia as stored that are not subject to any standard, limitation or other requirement under Section 111 or 112 (excluding 112(r)) of the Federal Act.	0
	3. All petroleum liquid storage tanks with a capacity of less than 10,000 gallons storing a petroleum liquid.	0
	4. All pressurized vessels designed to operate in excess of 30 psig storing petroleum fuels that are not subject to any standard, limitation or other requirement under Section 111 or 112 (excluding 112(r)) of the Federal Act.	0
	5. Gasoline storage and handling equipment at loading facilities handling less than 20,000 gallons per day or at vehicle dispensing facilities that are not subject to any standard, limitation or other requirement under Section 111 or 112 (excluding 112(r)) of the Federal Act.	0
	6. Portable drums, barrels, and totes provided that the volume of each container does not exceed 550 gallons.	Varies
	7. All chemical storage tanks used to store a chemical with a true vapor pressure of less than or equal to 10 millimeters of mercury (0.19 psia).	Varies

INSIGNIFICANT ACTIVITIES BASED ON EMISSION LEVELS

Description of Emission Units / Activities	Quantity
Wastewater Pre-Treatment	3
Composition Tank	1